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HELMINTHOLOGICAL ABSTRACTS

incorporating

BIBLIOGRAPHY OF HELMINTHOLOGY

For the Year 1936.

IMPERIAL BUREAU OF AGRICULTURAL PARASITOLOGY
(HELMINTHOLOGY)

Winches Farm Hatfield Road
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May, 1938

IMPERIAL BUREAU OF AGRICULTURAL PARASITOLOGY (HELMINTHOLOGY)

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HELMINTHOLOGICAL ABSTRACTS

INCORPORATING BIBLIOGRAPHY OF HELMINTHOLOGY
FOR THE YEAR 1936.

Vol. V, Part 5.

413—Acta Oto-Laryngologica.

*a. LIFSCHITZ, B. M., 1936.—" Über Wurmkrankheit in der Otolaryngologie." **23**, 543-548.

414—Agricultural Notes. Puerto Rico Agricultural Experiment Station.

a. CRAM, E. B., 1936.—" Notes concerning internal parasites of poultry in Puerto Rico." No. 70, 5 pp.
b. WRIGHT, W. H., 1936.—" Experiments in the treatment of poultry diseases in Puerto Rico." No. 73, 7 pp.
c. SPINDLER, L. A., 1936.—" The effects of natural factors, rain and sun, on survival of eggs and larvae of animal parasites under tropical conditions." No. 74, 4 pp.

(414a) An examination of the viscera of over 100 chickens from the island of Puerto Rico by Cram has shown that at least 12 species of nematodes and five of cestodes were present. There were no flukes. *Tetrameres* sp. and *Strongyloides* sp. were both very abundant and gave rise to definite lesions. *Dispharynx spiralis* in guinea fowls and chickens appeared often in massive infections and caused considerable areas of necrosis and ulceration. Birds reared on wire mesh floors were much less heavily infected than those reared on the ground, but the general environmental conditions of the Island seemed to have but little effect on the degree of infection. The small invertebrate fauna probably contains many species which can act as intermediate hosts for these helminths and should therefore be viewed with suspicion. Various means of reducing the degree of infestation are suggested. P.A.C.

(414b) Wright has evidence that the poultry in Puerto Rico are no longer economically profitable because they are so heavily parasitized with helminths. There were 7 species of nematodes, two of which at least, *Tetrameres americana* and *Cheilospirura hamulosa*, were responsible for some damage. Cestode infestations were very heavy and are believed to be responsible for much of the unthriftiness and lack of productivity. Trematodes were not important. Gentian violet, azamine, brilliant green and mercurochrome were promising anthelmintics against certain cestodes, and gentian violet is effective against *Strongyloides avium*. Many nematodes are controlled by the combination of heat, long hours of sunshine and lack of moisture. P.A.C.

* Original not available for checking or abstracting.

(414c) Spindler has studied some of the factors which influence the development and survival of the eggs and larvae of the more common parasites of farm stock in Puerto Rico. The species used were *Ascaris suis*, *Macracanthorhynchus hirudinaceus*, *Stephanurus dentatus*, *Oesophagostomum dentatum*, *Haemonchus contortus*, *Ancylostoma caninum* and various unspecified species of Strongylidae in horses. With grass approximately 4 inches high the larvae did not survive 20 days on unshaded grass areas. On partially shaded bare soil the larvae did not survive more than 12 to 16 days, nor more than 6 days on unshaded bare soil. The undeveloped eggs of *Ascaris suis* were killed by sunlight in about 3 hours. Heavy rainfall cleansed pastures of parasite eggs and larvae. During the dry season sunlight heat and air drying probably destroy most parasite eggs and larvae on pastures, provided the grass is not so dense as to protect them. These results did not apply however with the eggs and larvae of Strongylidae of horses. Horse strongyle larvae survived more than 20 days on unshaded grass areas, and over 6 days on sun-exposed bare soil, 50 % to 75% of these larvae were found in the upper portions of the faecal piles and only in small numbers in the soil or surrounding grass. None was found more than 8 inches away from the faeces. R.T.L.

415—Állatorvosi Közlöny.

a. TOKAYER, J., 1936.—" Adatok az echinococcus magyarországi elterjedéséhez." **33** (7), 109-110.

b. VAJDA, T., 1936.—" Hatástani vizsgálatok a Gilisztin nevű új sertésbélférgesség elleni szerrel." **33** (9), 142-143.

(415a) [Data on the spread of echinococcus in Hungary.]

(415b) Vajda reports the use of a mixture called " Gilisztin " containing ascaridol. After 24 hours starvation, 364 three months old pigs known to be infested with Ascaris were each given, via the nostrils, 2 c.c. of the mixture per kg. bodyweight. This was followed by 10 g. of Epsom salts with soft food which was repeated on the following day. After 6 to 14 days the faeces were found to be negative for Ascaris eggs. No harmful effects from the treatment were observed. K.S.

416—Állatorvosi Lapok.

a. VAJDA, T., 1936.—" A lovak orsóférgességének gyógyítása Ciff-tokkal." **59** (18), 280-282.

(416a) Vajda finds that the administration of Ciff capsules which contain arsenic acid, carbon tetrachloride, Isticin and Enulgator causes the expulsion of *Parascaris equorum* within 48 to 72 hours. No harmful effects resulted from the dose of 1 capsule for foals and 2 capsules for adult horses. K.S.

417—Állattani Közlemények.

a. SOÓS, Á., 1936.—" Magyarország mohában élő fonalférgeiről. I." **33** (1/2), 53-64. [German summary pp. 62-64.]

(417a) Soós has studied the little-known moss-inhabiting nematodes of Hungary. The 2,000 worms so far examined have been found to belong to 12 genera and 29 species. Of these, 15 known species are recorded for the first time from moss in Hungary. A.E.F.

418—American Heart Journal.

a. CUSHING, E. H., 1936.—"Electrocardiographic changes in trichinosis." **11** (4), 494-496.

419—American Journal of Digestive Diseases and Nutrition.

a. LANE, C., 1936.—"What drug best kills hookworms?" **3** (10), 770-772.

(419a) Clayton Lane discusses the anthelmintics used in the treatment of hookworm disease and points out the urgent need for further controlled comparative tests on these. The use of many of them, e.g., beta-naphthol, carbon tetrachloride, and carbon tetrachloride with oil of chenopodium, is attended by considerable danger. Tetrachlorethylene also has not been sufficiently tested to ensure its safety. He considers that at present thymol is the safest of the drugs having a fair degree of efficacy. K.S.

420—American Journal of Hygiene.

a. AUGUSTINE, D. L., 1936.—"Blood sugar values and the tolerance for dextrose in trichinosis." **24** (1), 170-176.

(420a) Augustine has determined blood sugar values in rabbits experimentally infected with *Trichinella spiralis* and in 14 persons suffering from trichinosis. No significant variations from normal blood sugar values were found. The results of dextrose tolerance tests indicated that trichinosis did not affect carbohydrate metabolism. R.H.H.

421—American Museum Novitates.

a. STUNKARD, H. W. & SCHOENBORN, H. W., 1936.—"Notes on the structure, distribution, and synonomy of *Diphyllobothrium lanceolatum*." No. 880, 9 pp.

(421a) The species of the genus *Diphyllobothrium* which have been recorded from seals are listed. Additions are made to Zschokke's description of *D. lanceolatum* and some variations described. *D. schistochilos* and *D. coniceps* are considered synonyms of *D. lanceolatum*. R.T.L.

422—American Naturalist.

a. CURTIS, M. R., DUNNING, W. F. & BULLOCK, F. D., 1936.—"A study of the influence of the genetic constitution of the host on the growth of *Cysticercus* sarcoma 146 and the Jensen rat sarcoma." **70** (726), 45-46.

(422a) [Abstract of a paper read at a meeting of the Genetics Society of America.]

423—Anales del Instituto de Biología.

a. GUBERLET, J. E., 1936.—"Trematodos ectoparásitos de los peces de las costas del Pacifico." **7** (4), 457-467.

b. CABALLERO Y C., E., 1936.—"Contribución al conocimiento de los nematodos de las aves de México. III." **7** (4), 469-475. [English summary p. 474.]

c. CABALLERO Y C., E., 1936.—"Contribución al conocimiento de los Cordius de México." **7** (4), 477-488. [English summary p. 487.]

(423a) Guberlet writes brief notes on the ectoparasitic trematodes of Pacific Coast fishes, especially those of Puget Sound. Six of his 11 pages are occupied by drawings. Very brief descriptions are given of three new species, *Acanthocotyle pugetensis* n. sp., *A. pacifica* n. sp., and *Rajonchocotyle ovata* n. sp., all parasitic on species of *Raja*. [Two other species, here listed as *Epibdella pacifica* n. sp. and *Calinella myliobati* n. sp. but not described, have been listed as new, and described in the American Midland Naturalist 17 (6), 954-964 [see Helm. Abs., Vol. v, No. 280a]. A note in the Journal of Parasitology 20 (6), 324 appears to be an abstract of the present paper as presented in English.] E.M.S.

(423b) Caballero describes and figures *Oxyspirura navali* n. sp. from the nictitating membrane of *Buteo borealis*, and *Microfilaria rhamphastotis* n. sp. from the blood of a toucan, *Rhamphastos carinatus*, both from Mexico. B.G.P.

(423c) Caballero points out that the genera *Gordius*, *Paragordius* and *Chordodes* represent the Gordiacea in Mexico. He briefly describes and gives the geographical distribution of seven species: *G. villoti*, *G. robustus*, *P. varius*, *C. dugesi*, *C. griffinii*, *C. occidentalis* and *C. nietoi* n. sp. The new form differs from the other species of *Chordodes* mentioned by the presence of cuticular areoles and in the shape of the tail end of the male. The author is doubtful of accepting the recorded occurrence of *Chordodes cameranonis* from Mexico. J.N.O.

424—Anales de Medicina Interna.

a. LÓPEZ ALBO, W. & FEIJÓO, A., 1936.—"Paraplejía progresiva y eosinofilia subaracnoidea; cisticercosis meningea dorsal. (Tercer caso diagnosticado en vida en España)." 5 (2), 137-151.

425—Anatomical Record.

a. AMERICAN SOCIETY OF ZOÖLOGISTS, 1936.—"Program for the thirty-fourth annual meeting." 67, Supplement No. 1, pp. 11-136.

(425a) The programme contains a list of numbered titles and abstracts of which the following are of helminthic interest: (i) B. D. Reynolds "Adolescariae from *Agriolimax agrestis*" (No. 107); (ii) C. H. Willey "Cytology and development of flame cells in the redial generation of a trematode" (No. 131); (iii) G. W. Hunter III & H. C. Dalton "Studies on *Clinostomum*. V. The cyst of the yellow grub of fish (*C. marginatum*)" (No. 138); (iv) A. C. Walton "The larval form of *Foleyella americana* Walton, 1929" (No. 139); (v) H. W. Beams & R. L. King "Ultracentrifuging and the first cleavage plane in *Ascaris suum*" (No. 193); (vi) G. W. Hunter III & W. S. Hunter "Studies on host reactions to larval parasites. I. Effect on weight" (No. 228); (vii) J. E. Ackert, I. Pratt & A. E. Freeman, jr. "Resistant and susceptible groups of white leghorn chickens to the nematode *Ascaridia lineata* (Schneider)" (No. 229). B.G.P.

426—Annaes Paulistas de Medicina e Cirurgia.

a. AZEVEDO, G. V. DE, 1936.—"A hydatidose hepatica e seu tratamento cirurgico." 31 (4), 373-384.

427—Annales de la Faculté des Sciences de Marseille.

a. JOYEUX, C. & TIMON-DAVID, J. 1936.—"Cestodes d'oiseaux de la région Marseillaise." **9** (2), 67-77.

(427a) Joyeux & Timon-David have listed the cestode parasites of a large number of birds killed in the district of Marseilles. As however some of the birds were obviously migrants, the list may not be a true index of local parasitism. Certain statistical and epidemiological notes are appended.

P.A.C.

428—Annales de Médecine et de Pharmacie Coloniales.

a. GUICHARD, F., 1936.—"La rotenone. Essai thérapeutique. Toxicité." **34** (3), 751-754.

(428a) Guichard has examined the effects of rotenone given by mouth to humans suffering with ankylostomiasis. The drug was ineffective as an anthelmintic, and produced distressing symptoms in the patient even when the amount administered was as small as 20 mg. R.H.H.

429—Annales de Médecine Vétérinaire.

a. SCHOENAERS, F., 1936.—"Diagnostic et traitement des helminthiases gastro-intestinales du cheval." **81** (10), 413-420.

b. PAPADANIEL, S., 1936.—"La dermatose ou gale microfilarienne du cheval en Grèce." **81** (10), 420-427.

(429a) Apart from aneurysms due to *Strongylus vulgaris*, the symptomatology of equine gastro-intestinal helminthiases is very uniform. Hence diagnosis must depend on finding worms or their eggs. Schoenaers gives brief notes on the examination of faeces, with drawings of five eggs, and a table of data for treatment arranged under helminths. The table gives drugs and posolgy, treatment before and after dosing, and contra-indications—all very briefly. B.G.P.

(429b) There exists commonly in horses in Greece a microfilarial dermatitis quite distinct from Filariasis haemorrhagica or habronemiasis, and liable to confusion with mange, trichophytosis or eczema. Papadaniel describes the lesions, the microfilaria (190 to 230μ by 4 to 5μ, sheathless), and the histopathology and gives six brief case reports. B.G.P.

430—Annales Médico-Psychologiques.

a. GASSIOT, G. & LECLERC, J., 1936.—"Ascaridiose et psychopathie." 94e Année, **1** (4), 534-547.

431—Annali Italiani di Chirurgia.

a. PERAZZO, G., 1936.—"Le alterazioni degli organi parenchimali in seguito ad iniezione di liquido di cisti da echinococco." **15** (11/12), 797-816.

(431a) Perazzo has introduced hydatid fluid into certain parenchymatous organs, i.e., liver, spleen and lungs, and noted the changes that have taken place. Of these only the eosinophilia which is of constant occurrence is of immunological significance. The other changes can all be explained on a mechanical or toxic basis. P.A.C.

432—Archief voor de Koffiecultuur in Nederlandsch-Indië.

a. FLUITER, H. J. DE, 1936.—" Korte mededeeling omtrent enkele resultaten, verkregen bij infectieproeven met *Caconema radicicola* (Greef, 1872)." 1936 (1), 24-31. [English summary p. 30.]

(432a) Fluiter states that young coffee plants were severely damaged by *Heterodera marioni* at the Besoeki Experimental Station in 1934 ; he describes the pathological anatomy of the galls and the results of infection tests. *Leucaena glauca* and *Tephrosia Vogelii* are concluded to be comparatively harmless in coffee plantations but *Nicotiana Tabacum, Momordica Charantia, Alternanthera sessilis* and *Passiflora foetida* are listed as dangerous reservoir hosts. Infected nurseries are not to be replanted for some considerable time. M.J.T.

433—Archiv für Experimentelle Zellforschung.

a. RIX, E. & LAAS, M. E., 1936.—" Über die auf das Gewebswachstum wirksamen Stoffe von *Ascaris lumbricoides* und *Taenia saginata*." 18 (4), 467-474.

(433a) Rix & Laas have observed the effect of extracts of *Ascaris lumbricoides* and *Taenia saginata* on explanted embryonic tissue. Aqueous extracts had a stimulating, and ether extracts an inhibitive action on growth. Both the stimulating and inhibitive factors were present in aqueous extracts, the former predominating. The stimulating factor was largely destroyed in the process of drying, which preceded ether extraction. When the fluid of the body cavity was subjected to Seitz filtration the filtrate contained the inhibitive factor. Both factors were present to a larger extent in Ascaris than in Taenia. R.H.H.

434—Archiv für Geflügelkunde.

a. HEINEMANN, E., 1936.—" Die Parasiten des Hausgeflügels. 6. Parasitische Würmer als Ursache eines Gänsesterbens." 10, 322-336.

(434a) Heinemann records the presence in geese of heavy infections of *Echinoparyphium recurvatum, Hypoderaeum conoideum, Echinostoma paraulum, Notocotylus attenuatus, N. thienemanni, N. seineti, Bilharziella polonica* and *Amidostomum anseris*. The structure and life-history of the species is described together with some observations on their habitat, and some measures of control are suggested. P.A.C.

435—Archiv für Klinische Chirurgie.

a. MOST, A., 1936.—" Über Knochenechinokokken." 186, 537-546.

436—Archiv für Wissenschaftliche und Praktische Tierheilkunde.

a. ENIGK, K., 1936.—" Untersuchungen über die Abtötung der Spulwurmeier und Coccidienoocysten durch Chemikalien." 70, 439-448.

(436a) Enigk finds that lipoid solvents, above all carbon bisulphide, have a rapid toxic action on ascaris eggs and coccidial cysts, whereas common disinfectants are of little use. The admixture of phenol or its derivatives increases the value of the carbon bisulphide in emulsions containing 1% of each : it is for the chemist to find practicable and stable emulsions of this kind. B.G.P.

437—Archives d'Anatomie Microscopique.

a. FEYEL, T., 1936.—" Recherches histologiques sur *Nectonema agile* Verr. Étude de la forme parasite." **32** (2), 197-234.

(437a) Feyel gives a detailed account of the histology of the parasitic stages of *Nectonema agile*, a member of the Nematomorpha, obtained from its crustacean host, *Anapagurus hyndmanni*. T.G.

438—Archives de Biologie. Liége & Paris.

a. PENNYPACKER, M. I., 1936.—" The chromosomes in the maturation of the germ cells of the frog lung fluke, *Pneumonoeces medioplexus*." **47** (2), 309-317.

439—Archives Internationales de Médecine Expérimentale.

a. KAUFMANN, W., 1936.—" La schistosomiase de l'appendice par rapport à la schistosomiase de l'intestin et sa signification clinique." **11** (4), 721-750.

(439a) Kaufmann presents three case reports of appendicular schistosomiasis, diagnosed as *S. haematobium* from sections, and discusses their pathological anatomy, histology, and clinical manifestations. B.G.P.

440—Archives des Maladies de l'Appareil Digestif et des Maladies de la Nutrition.

*a. FERNANDEZ, F., 1936.—" Parasitisme intestinal chez les enfants sains." **26**, 665-673.

*b. GUILLEMINET, M., MORENAS, L. & MAGNIN, P., 1936.—" Les formes chirurgicales de l'ascaridiose." **26**, 1121-1140.

441—Archives des Maladies des Reins et des Organes Génito-Urinaires.

a. UFFREDUZZI, 1936.—" L'échinococcose de la loge rénale. Considérations cliniques." **10** (4), 347-351.

442—Archives of Neurology and Psychiatry.

a. PERRY, I. H., 1936.—" Cysticercus cysts of the brain. Report of a case with Jacksonian epilepsy." **35** (4), 862-867.

443—Archives d'Ophtalmologie.

a. TRIANDAF, E. & NITZULESCU, J., 1936.—" Manifestations oculaires dans la trichinose." **53** (1), 47-51.

444—Archives of Pediatrics.

a. LEMMON, J. R., 1936.—" Intestinal parasites in children." **53** (2), 126-132.

b. BELL, M. A., 1936.—" *Oxyuris vermicularis* and appendicitis." **53** (10), 649-653.

445—Archives de Physique Biologique.

a. HOUOT, A., 1936.—" Étude comparative des modifications sanguines du point isoélectrique, du pouvoir alexique et de la vitesse de sédimentation chez des sujets parasités." **13** (2), 177-190.

* Original not available for checking or abstracting.

(445a) Houot has made a haematological study of various cases of parasitism, involving blood counts, haemoglobin determinations, sedimentation rate and isoelectric point of serum. The cases include seven of intestinal nematode infections, four of hydatidosis and three of Taeniasis saginata. In general, the sedimentation rate and isoelectric point are both increased by parasitism while the other features vary according to the infection. B.G.P.

446—Archives de la Société des Sciences Médicales et Biologiques de Montpellier.

a. RIMBAUD, L., ANSELME-MARTIN, G., BERT, J. M. & BÉTOULIÈRES, P., 1936.—" Kyste hydatique suppuré du foie à evolution aiguë dans un post-abortum. Diagnostic radiologique." **17**, 112-115.
b. RIMBAUD, L., ANSELME-MARTIN, G. & BERT, J. M., 1936.—" Kyste hydatique du foie latent révélé par un ictère du type par rétention." **17**, 143-146.
c. RICHE, V., TRUC, E. & VERGUES, 1936.—" À propos d'un cas de kyste hydatique du foie ancien et calcifié, tardivement ouvert dans les voies biliaires." **17**, 325-328.

447—Archivio ed Atti della Società Italiana di Chirurgia.

*a. MAROGNA, P., 1936.—" La cista da echinococco del polmone." **42**, 3-69.
*b. GARGANO, C., 1936.—" Alterazioni del tessuto polmonare concomitanti o consecutive a cisti di echinococco." **42**, 593-595.
*c. FRANCINI, M., 1936.—" Sulla cura delle cisti di echinococco del polmone." **42**, 596-600.
*d. CALABRESE, D., 1936.—" Cisti da echinococco del polmone." **42**, 601-603.

448—Archivio Italiano di Dermatologia, Sifilografia e Venereologia.

*a. AMICIS, A. DE, 1936.—" Un caso autoctono di filariasi da *Filaria bancrofti*, con elefantiasi dell'asta e linfoscroto, osservato in Italia." **12**, 285-296.

449—Archivio Italiano delle Malattie dell'Apparato Digerente.

*a. COTTI, L., 1936.—" L'anemia da *Anchilostoma duodenale* (studio ematologico e clinico)." **5**, 442-454.

450—Archivio Italiano di Scienze Mediche Coloniali.

a. PENSO, G., 1936.—" Sull'azione della calciocianamide sopra le cercarie dei distomi." **17** (12), 705-709.

(450a) Exposing freshly shed cercariae of *Fasciola hepatica* and *Cercaria burti* var. *icnusae* to the action of calcium cyanamide in dilutions of 0·2, 0·1, 0·05 and 0·025% respectively, Penso found that the two weaker solutions were not completely lethal in 60 minutes. The 0·2% solution was lethal within 5 minutes and the 0·1% within 15 minutes. B.G.P.

451—Archivos de Hygiene e Saude Publica.

a. SAMPAIO DORIA, A. DE, 1936.—" A verminose no littoral norte do estado. Intensidade de infestação pela ancylostomose." **2**, 89-100.

* Original not available for checking or abstracting.

452—Archivos do Instituto Biologico.

a. PEREIRA, C., VIANNA DIAS, M. & AZEVEDO, P. DE, 1936.—" Biologia do nematoide *Procamallanus cearensis* n. sp." 7, 209-226. [English summary p. 225.]
b. PEREIRA, C., 1936.—" Nota sobre a acanthella de *Oncicola oncicola* (v. Ihering, 1892)." 7, 245-252. [English summary pp. 250-251.]
c. VAZ, Z., 1936.—" Estudos sobre nematoides parasitas da ema (*Rhea americana*)." 7, 253-266. [English summary pp. 264-265.]
d. VAZ, Z., 1936.—" *Hempelia hempeli* n. g., n. sp. de nematoide espirurideo parasita dos olhos da perdiz e codorna (*R[h]ynchotus rufescens* e *Nothura maculosa*)." 7, 267-271. [English summary pp. 270-271.]

(452a) Pereira and his collaborators describe and figure the larval and adult stages of *Procamallanus cearensis* n. sp. from the intestine of the fresh-water fish *Astyanax bimaculatus vittatus* in the State of Ceará (Brazil). The life-history involves species of *Diaptomus*, in the body cavity of which development proceeds no further than the second stage. Third and fourth stage larvae occur in the intestine of the fry of another fresh-water fish, *Curimatus elegans*, which thus appears to function as a " waiting host " or vector.

B.G.P.

(452b) Pereira records and figures the larval stage of *Oncicola oncicola* (adult in felines) encysted in the subcutaneous connective tissues and skeletal muscles of the bird *Leptoptila verreauxi ochroptera*. All the larvae were in the " acanthella " stage, in which most of the adult characters are present, and Pereira discusses the possibility of an arthropod intermediary for the earlier " acanthor " stage. B.G.P.

(452c) From a *Rhea americana*, Vaz describes and figures *Sicarius nobregai* n. sp. and *Deletrocephalus cesarpintoi* n. sp. He gives a list of the species of *Habronema* which, owing to presence of true interlabia, should be included in *Sicarius* Li, 1934 and another list of *Habronema* species *sensu stricto*. It is likely that Schneider (1866) actually described *D. cesarpintoi* under the name *D. dimidiatus*. B.G.P.

(452d) Vaz describes and figures *Hempelia hempeli* n. g., n. sp. from the eye-sockets of *Rhynchotus rufescens* and *Nothura maculosa*. The new genus lies between *Thelazia* and *Oxyspirura*, and it is just possible that it is synonymous with Molin's *Filaria tinami variegati*, which, however, Vaz regards as a *nomen nudum*. B.G.P.

453—Archivos Internacionales de la Hidatidosis.

a. PUTZU, F., 1936.—" L'echinococcosi in Italia." 2 (1), 13-35.
b. BOLOGNESI, G., 1936.—" Su le cisti da echinococco : contributo clinico-operatorio." 2 (1), 37-53.
c. ANTONUCCI, C., 1936.—" Sulla cura chirurgica dell'echinococco polmonare." 2 (1), 57-72.
d. PINELLI, L., 1936.—" La diagnosi biologica dell'echinococcosi." 2 (1), 75-127.

454—Archivos de Medicina, Cirugía y Especialidades.

a. CALVO MELENDRO, J., 1936.—" Equinococosis familiar." 39 (6), 197-200.

455—Archivos de Medicina Infantil.

a. SALA PANISELLO, F., JIMÉNEZ, J. A. & GUERNICA, A., 1936.—"Enterocolitis y apendicitis por ascaridiasis y tricocefalosis." 5 (3), 284-297. [English summary p. 296.]

456—Archivos de Pediatría del Uruguay.

*a. MORQUIO, L., BONABA, J. & SOTO, J. A., 1936.—"Nuevo caso de neumoquiste hidático perivesicular al nivel del pulmón. Consideraciones patogénicas." 7, 298-307.

457—Archivos Uruguayos de Medicina, Cirugía y Especialidades.

a. PIAGGIO BLANCO, R. A. & GARCÍA CAPURRO, F., 1936.—"Tratamiento de las supuraciones pulmonares hidáticas y sus secuelas." 9 (2), 163-174.
b. BARÚ, R. J. & ISASI, E., 1936.—"Inversión total de vísceras. Litiasis biliar y pequeño quiste hidático intrahepático." 9 (2), 191-194.
c. PIAGGIO BLANCO, R. A. & GARCÍA CAPURRO, F., 1936.—"Consideraciones sobre el tratamiento de los quistes hidatídicos cerrados a contenido vesicular hialino." 9 (4), 415-432.
d. LARGHERO-IBARZ, P. & BENNATI, D., 1936.—"Hemorragia aguda y fístula pancreática en el saco adventicio de un quiste retro-peritoneal evacuado 2 años antes." 9 (4), 476-486.
e. PIAGGIO BLANCO, R. A. & GARCÍA CAPURRO, F., 1936.—"Modalidades anátomo clínicas de la rotura de la membrana hidática en los bronquios." 9 (6), 677-695.

458—Arkiv för Zoologi.

a. NYBELIN, O., 1936.—"*Bunocotyle cingulata* Odhner—ein halophiler Trematode des Flussbarsches und Kaulbarsches der Ostsee." 28 B (10), 1-6.

(458a) Nybelin has made a study of the distribution of *Bunocotyle cingulata* as a parasite of *Perca* and *Acerina* along the Baltic coast of Sweden. He shows that the confinement of the parasite to the southern section is not due to a climatic factor, but is dependent on the salinity—the unknown intermediate host is probably a marine form, the definitive host a fresh-water form—the parasite is established only where the two ranges overlap.

E.M.S.

459—Australian and New Zealand Journal of Surgery.

a. BEGG, R. C., 1936.—"Renal echinococcosis in Australia and New Zealand." 6 (2), 108-133.

460—Azione Veterinaria.

a. BERTOLINI, G., 1936.—"Sulla bilharziosi del bestiame in Italia. (Problemi d'ordine parassitologico, sintomatologico ed anatomo-patologico dell' infestazione da *Bilharzia crassa*)." 5 (14), 336-343.

(460a) [This paper appears also in Arch. Ital. Sci. Med. Col., 17 (5), 311-319; see Helm. Abs., Vol. V, No. 191b.]

* Original not available for checking or abstracting.

461—Bahia Medica.

*a. RIBEIRO, G., 1936.—" Ligeiras considerações sobre as dysmenorréas ; dysmenorréa por esquistosomose." **7**, 122-127.

462—Boletin del Instituto de Clínica Quirúrgica.

a. FERRARI, R. C., 1936.—" A propósito de la clasificación de Ivanissevich de los equinococos del bazo." **12** (103/104), 224-227.
b. ARCE, J., 1936.—" Tratamientos de los quistes hidáticos del pulmón. Estadística del Instituto de Clínica Quirúrgica. Casos operados con neumotórax previo." **12** (105/106), 257-258.
c. LANDÍVAR, A. F., 1936.—" Doble quiste hidático del pulmón derecho. Operación de Arce. Curación." **12** (105/106), 259-262.
d. RISOLÍA, A. J. & GRAVANO, L., 1936.—" La ascitis mecánica, la hiperplasia compensadora y la cirrosis, en la hidatidosis hepática." **12** (105/106), 275-280.

(462b) [See also No. 463j below.]

(462c) [See also No. 463a below.]

463—Boletines y Trabajos de la Sociedad de Cirugía de Buenos Aires.

a. LANDÍVAR, A. F., 1936.—" Doble quiste hidático del pulmón derecho. Operación de Arce. Curación." **20** (6), 210-232.
b. PAVLOVSKY, A. J., 1936.—" Quiste hidático primitivo del bazo. Neumoperitoneo. Incisión de Arce. Esplenectomía." **20** (9), 298-305.
c. RODRÍGUES VILLEGAS, R., 1936.—" Quiste hidatídico del pulmón con pleura libre. Detalles de técnica. (Estadística personal)." **20** (9), 316-322.
d. RODRÍGUEZ VILLEGAS, R., 1936.—" Causas de mortalidad en los operados de quiste hidatídico del pulmón." **20** (12), 431-438.
e. CALCAGNO, 1936.—" Quiste hidatíco del bazo. Esplenectomía." **20** (13), 442-443.
f. CEBALLOS, A., 1936.—" Quistes hidáticos del pulmón con pleura libre. Detalles de técnica." **20** (13), 444-447.
g. VELASCO SUÁREZ, C., 1936.—" Causas de mortalidad en los operados de quiste hidático del pulmón." **20** (13), 447-456.
h. VELASCO SUÁREZ, C. & PAVLOVSKY, A., 1936.—" Hidatidosis pulmonar múltiple. A propósito de dos observaciones. (Hidatidosis hepática múltiple y quiste hidático del bazo)." **20** (13), 456-472.
i. CAEIRO, J. A. & CALDAS, E., 1936.—" Quistes hidáticos musculares. (Biceps braquial, dorsal largo, psoas ilíaco)." **20** (26), 968-977.
j. ARCE, J., 1936.—" Tratamientos de los quistes hidáticos del pulmón. Estadística del Instituto de Clínica Quirúrgica." **20** (32), 1198-1200.

464—Bollettino e Memorie della Società Piemontese di Chirurgia.

*a. BOBBIO, L., 1936.—" Cisti da echinococco del polmone." **6**, 319-324.

465—Bollettino di Zoologia.

a. MARCHESE SILVIO, D., 1936.—" Su alcuni caratteri di fissabilità dei granuli fenolici nei vitellogeni dei platelminti." **7** (2/3), 95-98.

* Original not available for checking or abstracting.

466—Botany and Zoology.

a. YAMASHITA, J., 1936.—"On the morphological study of *Glypthelmins rugocaudata* (Yoshida), a trematode of the frog." **4** (8), 1359-1370. [In Japanese.]

b. FUKUI, T. & OGATA, T., 1936.—"A new trematode from *Ocadia sinensis*." **4** (10), 1707-1710. [In Japanese.]

467—Brasil-Medico.

a. MACIEL, H., 1936.—"A evolução do estudo das helminthoses do homem, no Brasil." **50** (48), 1035-1037.

468—British Guiana Medical Annual for 1936.

a. CLAVIER, G. P., 1936.—"Brevities on the problems of filariasis. A resumé of the proven facts and arguments on others." pp. 38-53.

b. ROMITI, C., 1936.—"Filariasis in British Guiana. Comments on criticisms on previous publications of my research in this disease, and correction of misstatements attributed to me." pp. 54-65.

c. ROMITI, C., 1936.—"Operations for elephantiasis of the leg and scrotum and for 'filarial varicolymphocele of the spermatic cord'. A short description of the technique adopted by the author in the surgical treatment of three different conditions commonly met with in filariasis." pp. 66-73.

469—British Journal of Surgery.

a. BEGG, R. C., 1936.—"Hydatid disease of the kidney." **24** (93), 18-40.

470—Bulletin du Comité d'Études Historiques et Scientifiques de l'Afrique Occidentale Française.

a. DOLLFUS, R. P., 1936.—"Parasitologia Mauritanica: matériaux pour la faune parasitologique en Mauritanie. Helmintha III. Trématodes de sélaciens et de chéloniens." **19** (4), 397-519.

(470a) Dollfus supports the creation by Cerfontaine of the family Onchocotylidae with the genera *Acanthonchocotyle*, *Rajonchocotyle* and *Squalonchocotyle*, although his definitions are less rigid than those of Cerfontaine. Four "forms" of *Squalonchocotyle abbreviata* are described, one being from the gills of *Mustelus asterias*, from Mauritania. The genus *Heteronchocotyle* Brooks is added to the family. *Ptychogonimus* is made type of a new family, Ptychogonimidae, which is intermediate between the Azygiidae and the Hirudinellidae. The genus *Otodistoma* is divided into six "forms" on the basis both of egg size and shell thickness, and of host and geographical distribution. A new family, the Monodhelminthidae, is created for *Monodhelmis torpedinis* Dollfus 1937, from the alimentary canal of *Narcacion torpedo*. The genus *Orchidasma* Looss is made the type of a new sub-family, the Orchidasmatinae, which, with the Brachycoeliinae and the Cymatocarpinae, constitutes the family Brachycoeliidae Dollfus. The genus *Pachypsolus* is retained in the Styphlotrematinae only because of the lack of suitable material for a study of the other genera of the family. E.M.S.

471—Bulletin Général de Thérapeutique.

a. LANOS, J., 1936.—"Un cas de kyste hydatique du poumon." **187** (10), 497-503.

472—Bulletin International de l'Académie Polonaise des Sciences et des Lettres. Classe des Sciences Mathématiques et Naturelles. Série B. Sciences Naturelles.

a. MARKOWSKI, S., 1936.—"Über die Trematodenfauna der baltischen Mollusken aus der Umgebung der Halbinsel Hel." Year 1936, **2** (5/7), 285-317.

(472a) During 1933-1935 Markowski examined 2,400 molluscs from the neighbourhood of Hel Peninsular, viz., 300 each of the following species :— *Theodoxus fluviatilis*, *Hydrobia ulvae*, *H. ventrosa*, *Radix ovata*, *Cardium edule*, *Macoma balthica*, *Mya arenana*, *Mytilus edulis*. 322 specimens were found to be infested with larval stages of trematodes. A table shows the number of each species infected, the species of parasite found and the degree of infestation. The parasites found were : (i) Cercariae ; *Cercaria A*, *C. ephemera*, *C. baltica* n. sp., *C. grisea* n. sp., *C. caulleryi* n. sp. (ii) Cercariaea ; *Cercariaeum hydrobiae ventrosae* n. sp. (iii) Metacercariae ; *Asymphylodora demeli*, *Metacercaria morula* n. sp., *M. mutabilis* n. sp., *Metorchis progenetica* n. sp., *Himasthla secunda*, *Tetracotyle cornuta*, *Metacercaria* sp. Each species is described in detail and figured. A.E.F.

473—Bulletins et Mémoires de la Société de Radiologie Médicale de France.

a. LE GENISSEL, 1936.—"De l'influence des scissures dans la morphologie des kystes hydatiques du poumon." **24**, 240-243.

b. LAMARQUE & BÉTOULIÈRES, 1936.—"A propos des images gazeuses sous-phréniques droites." **24**, 508-512.

c. BELOT, J. & PEUTEUIL, G., 1936.—"Le signe du 'décollement' pathognomonique du kyste hydatique du poumon." **24**, 533-535.

474—Bulletin de la Murithienne. Société Valaisanne des Sciences Naturelles, Sion.

a. BERZ, A., 1936.—"Recherches sur la distribution des protozoaires et des nématodes dans le sol de la réserve d'Aletsch." Fasc. 53, 141-228.

(474a) On pages 195 to 207 Berz discusses the free-living nematodes found in soils from the Aletsch reserve in Switzerland under the following heads : classification, distribution of the genera found, conditions under which nematodes live, relationship between nematodes and certain plant species, dissemination of nematodes, density of nematodes at different altitudes and in different soils in summer and autumn. T.G.

475—Bulletin of the Museum of Comparative Zoölogy at Harvard College.

a. SANDGROUND, J. H., 1936.—"Scientific results of an expedition to rain forest regions in Eastern Africa. VI. Nematoda." **79** (6), 341-366.

(475a) A small collection of reptilian nematodes from Kenya provides one new genus and 5 new species, viz., (i) *Paraspirura mabuyae* n. g., n. sp. occurs in the stomach of *Mabuya brevicollis* in Kenya. The genus *Paraspirura* shows closest affinity to Spirurinae or to Habronematinae according to the interpretation of the narrow flange-like membranes connecting the lips as interlabia. The new genus differs from *Spirura* on account of the absence

of labial lobes, the presence of labial teeth and the shape of the buccal cavity. Except for *Hedruris* there is no genus in the Spiruridae with representatives in reptiles. (ii) *Abbreviata* (*Polydelphyoptera*) *poicilometra* n. sp. from *Cercopithecus mitis kibonotensis*. Its most outstanding features are the presence of a sixth pair of post-anal papillae and the surprising variation in the number and mode of origin of the uteri. (iii) *Oswaldocruzia loveridgei* n. sp. from *Siaphos kilimensis* resembles most nearly *O. brasiliensis*. The new species is based on the form of the spicules and the terminal branching of the dorsal ray. (iv) *Pharyngodon mabuyae* n. sp. from *Mabuya varia varia*. (v) *Thelandros seurati* n. sp. from *Acontias percivali*. In Sandground's view the genus *Thelandros* could be better classified as a subgenus of *Pharyngodon*. The paper concludes with a discussion of the host range of the genus *Strongyluris*. R.T.L.

476—Bulletin de l'Office International des Épizooties.

a. SKRIABINE, K. I. & SCHULZ, E. E. S., 1936.—"Les helminthoses pulmonaires des animaux." **12**, 407-456.

(476a) Skrjabin & Schulz give an account of the treatment and control of lungworm disease in sheep and goats, cattle, horses, pigs, and foxes, due to metastrongylid nematodes. Relevant data on life-history and biology are given under each species, and in the case of *Metastrongylus* the pathology is also discussed. Treatment with Lugol's iodine and control by rotational grazing have been extensively employed in the U.S.S.R. against *Dictyocaulus filaria* and *D. viviparus*, and are being developed against species of *Metastrongylus*: these parasites receive more detailed consideration than other species. In the section on *Metastrongylus* spp. it is shown that their eggs are best concentrated from faeces by flotation with a 62% solution of magnesium sulphate. B.G.P.

477—Bulletin de la Société Française de Dermatologie et de Syphiligraphie.

a. CHANTRIOT, P., 1936.—"Allergie cutanée et parasitisme intestinal." **43** (7), 1536-1542.
b. JAUSION, H., 1936.—"À propos de la communication de P. Chantriot sur: Allergie cutanée et parasitisme intestinal." **43** (8), 1576-1577.
c. BOCAGE, A. & MERCIER, P., 1936.—"Un cas de dermatite linéaire rampante." **43** (8), 1579-1580.

(477a) Chantriot records the occurrence of urticaria associated with *Trichocephalus* and with *Taenia saginata* in the intestine, and of an excematous prurigo in a child carrying *Ascaris lumbricoides*. These cutaneous symptoms disappeared when the worms were removed by vermifuges. He makes some remarks on cutaneous allergy following helminthic infestation of the intestine. P.A.C.

(477c) [Case of creeping eruption with parasite not determined.]

478—Bulletin de la Société d'Histoire Naturelle du Doubs.

a. DERONDE, 1936.—"Le dragonneau (*Gordius aquaticus*), némathelminthe parasite des insectes et des myriapodes." Année 1935, No. 46, 43-48.

(478a) Deronde records the occurrence of *Gordius aquaticus* in a grasshopper, *Decticus verrucivorus*, and gives a general account, based mainly on Dorier's researches, of its life-cycle, bionomics and hosts. [The specific name of the parasite is spelt *aquatilis* consistently throughout the text.] J.N.O.

479—Bulletin de la Société Médico-Chirurgicale de l'Indochine.

a. GALLIARD, H. 1936.—"Un parasite de l'homme, nouveau pour l'Indochine: *Filaria malayi* Brug 1927." **14** (8), 1091-1093.

b. GALLIARD, H. & PHAN-HUY-QUAT, 1936.—"Recherches et considérations sur le traitement de la distomatose hépatique à *Clonorchis sinensis*." **14** (8), 1094-1100.

c. GALLIARD, H., RIOU, M. & NGUYÊN-HUU-PHIÊM, 1936.—"Orchites et orchi-épididymites aiguës à streptocoques chez des porteurs de *Filaria bancrofti*. Traitement par le chlorhydrate de sulfamido-chrysoïdine." **14** (9), 1266-1268.

(479a) In Indo-China and especially in Tonkin elephantiasis is rare. Galliard reports a series of infections with *Microfilaria malayi* in which there were no filarial manifestations. *Microfilaria malayi* was found in 23 out of 170 cases. *Culex fatigans* was found to be quite refractory to experimental infection with *F. malayi*. R.T.L.

(479b) Antimony compounds alone appear to have any therapeutic value in clonorchiasis and their effects are uncertain and irregular. This is probably due to the advanced stage of the disease when treatment is undertaken and to repeated reinfection. The authors used, without success, emetine, thymol and novarsenobenzol and, in large doses, ethereal extract of male fern. Anthiomaline, given in one case intramuscularly, is favourably reported upon. R.T.L.

480—Bulletin de la Société de Pathologie Exotique.

a. ROBIC, J., 1936.—"Note sur la dysenterie bacillaire à Madagascar; ses rapports avec les autres dysenteries." **29** (10), 1126-1131.

(480a) Robic discusses the incidence of bacillary, amoebic and bilharzial dysentery in Madagascar. *Schistosoma mansoni* was found in 20 of 604 native troops and in 759 of 2,123 persons at Vatomandry. B.G.P.

481—Bulletins de la Société de Pédiatrie de Paris.

a. BELLOCQ, G. P., 1936.—"L'oxyurose chez le nourrisson." **34**, 401-404.

482—Bulletin. University of Florida Agricultural Experiment Station.

a. GOFF, C. C., 1936.—"Relative susceptibility of some annual ornamentals to root-knot." No. 291, 15 pp.

(482a) Goff tested 80 species of annual ornamentals regarding susceptibility to root-knot; of these seven are listed as not infested, 19 as very lightly infested, 16 as lightly infested, 12 as moderately infested, 13 as heavily infested, and 13 as very heavily infested. Wide variations in susceptibility were found to exist within the same kind of plant in some instances, either between different types or individuals of the same type. M.J.T.

483—Bulletin of the West Virginia University Agricultural Experiment Station.

a. RIETZ, J. H., 1936.—" Mass feeding of sheep with copper sulphate and salt to control gastro-intestinal parasites." No. 271, 11 pp.

b. ANON, 1936.—" Service to agriculture. Report for the biennium ending June 30, 1936." No. 278, 40 pp.

(483a) Rietz has found that a mixture of copper sulphate and salt, 1 : 30, fed to sheep *ad libitum* and consumed at the rate of one half pound per sheep per month for a year, did not adequately control the development of nematode parasites in the gastro-intestinal tract, and yet caused the death of 2 out of the 20 experimental sheep. A 1 : 50 mixture of copper sulphate and salt proved wholly inadequate in controlling the nematodes. A 1½% solution of copper sulphate, and a mixture of equal parts of 1½% solution of copper sulphate and 1½% of nicotine sulphate, were both found to be effective in the control of nematode infestation. These solutions were given every three weeks—3 ounces to adult sheep, and 2, 2½ and finally 3 ounce doses to lambs. Tapeworm segments were found to disappear from the faeces of sheep treated with these solutions. K.S.

(483b) In a paragraph on animal diseases it is reported that three years of trials have demonstrated that vitamin A content of a ration does not modify the susceptibility of pigs to infestation with roundworms. Pigs which were fed a basal ration supplemented by whole cod liver oil and those which received vitamin D only in oxygenated cod liver oil added to the basal ration developed fully as many and as large worms as those receiving a basal ration only. One intratracheal injection of 2 to 3 c.c. of oil extract of pyrethrum removed the lungworms of 75% of 200 sheep; two injections were required for 20% of the sheep and 5% required 3 injections. R.T.L.

484—Campo. Agricultura, Industria, Commercio. Rio de Janeiro.

a. PINTO, C., 1936.—" Contribução ao estudo da *Taenia taeniaeformis* (Batsch, 1786), parasito dos gatos do Brasil." 7 (73), 26-29.

b. PINTO, C., 1936.—" Physalopterose dos gatos do Brasil por *Physaloptera praeputialis* von Linstow, 1889. Nematoda. Physalopteridae." 7 (73), 45-47.

c. PINTO, C. & PROENÇA, C., 1936.—" Etiologia dos aneurismas helminticos e strongylose equina." 7 (79), 53-56.

(484a) Pinto gives an illustrated description of the adult and larval *Taenia taeniaeformis*, and of the life-history. [The article is not concerned with original work.] B.G.P.

(484b) Pinto records that 35% of the domestic cats of the city of Rio de Janeiro are heavily infected with *Physaloptera praeputialis*, several cases having proved fatal. He describes the lesions and redescribes and figures the parasite. P.A.C.

(484c) Pinto & Proença record the finding of a male *Trichonema goldi*, as well as larval *Strongylus vulgaris*, in an aneurysm in a horse in Brazil, whence *T. goldi* has not before been found. They also give the numbers of the three species of Strongylus found in each of 22 horses from Irajá. These horses showed severe symptoms of strongylosis which in some cases terminated fatally: the heaviest infection involved 210 strongyles. B.G.P.

485—Canadian Medical Association Journal.

a. BEREGOFF-GILLOW, P., 1936.—" Observations on intestinal flora found in Montreal." **35** (4), 421-422.

(485a) Beregoff-Gillow's paper on intestinal flora in Montreal contains a table showing that the 3 common tapeworms were found in 3 adults and 2 children, and the 3 common roundworms in 6 adults and 39 children.

B.G.P.

486—Časopis Lékařův Českých.

a. ŠIŠKA, K., 1936.—" Vzácnější případy z chirurgie břišní." **75** (18/19), 565-569. [French summary p. 569.]
b. ŠKORPIL, F., 1936.—" O askaridose jater." **75** (18/19), 569-573. [French summary pp. 572-573.]

(486a) [A case of echinococcus of the liver.]

(486b) [Ascariasis of the liver.]

487—Cervello. Giornale di Neurologia.

*a. SCHAECHTER, M., 1936.—" Étude clinique sur les méningites vermineuses ; à propos de deux cas personnels." **15**, 321-331.

488—Ceylon Journal of Science. Section B. Zoology and Geology. (Spolia Zeylanica).

a. BURT, D. R. R., 1937.—" A new species of cestode, *Dilepis lepidocolpos*, from the little cormorant (*Phalacrocorax niger*)." **19** (3), 193-200.

(488a) Burt describes *Dilepis lepidocolpos* n. sp., from *Phalacrocorax niger* in Ceylon. The features which distinguish it from other species of the genus are an asymmetrically placed ovary which is slightly poral in position, the presence of spines on the cirrus and vaginal lining and the fact that testes and ovary persist in the gravid segments. There are usually 4 testes, situated in a transverse row behind the ovary. In attaching itself to the host, the scolex penetrates the submucosa where a sac forms round it. P.A.C.

489—China Journal.

a. SHAW, T. H., 1936.—" The story of *Dirofilaria immitis* (Leidy), a parasitic thread worm in the heart of the domestic dog." **24** (4), 228-231.

490—Clinica Pediatrica.

a. CARANI, U., 1936.—" Un caso di distomatosi da fasciola epatica in un bambino di 4 anni." **18** (5), 311-312.

491—Clinica Veterinaria.

a. MISTRORIGO, R., 1936.—" Sulla terapia della ascaridiosi dei polli." Anno **59** (8), 512-517.

* Original not available for checking or abstracting.

(491a) Mistrorigo has used tetrachlorethylene (1 c.c. in capsules) and carbon tetrachloride (3 c.c. by syringe) respectively in two groups of fowls infested with Ascaridia. The former drug gave a complete cure in 78% of 105 birds and the latter in 95·5% of 215 birds, as judged by disappearance of symptoms and of Ascaridia eggs in the faeces. B.G.P.

492—Clinique. Paris.

*a. HAUTEFEUILLE, E., 1936.—" Méningite vermineuse." **31**, 271-273.

493—Clujul Médical.

*a. DEGAN, E. & TODEA, C., 1936.—[Case of pulmonary hydatid cyst with atypical roentgenologic aspects.] **17**, 31-32.

*b. MANEA, E., 1936.—[Roentgen diagnosis of pulmonary echinococcosis.] **17**, 454-455.

494—Colorado Medicine.

a. STETTHEIMER, C. J., 1936.—" Trichinosis: a report of twelve cases occurring in Colorado." **33** (12), 880-887.

495—Comptes Rendus de l'Académie des Sciences de l'URSS.

a. SMORODINZEW, I. A. & BEBESCHIN, K. W., 1936.—" La teneur en glycogène des ascarides." **2** (5), 189-191.

b. SMORODINZEW, I. A. & PAVLOVA, P. I., 1936.—" La composition chimiques des oeufs de *Taeniarhynchus saginatus* et de *Diphyllobothrium latum*." **3** (1), 29-31.

(495a) Smorodinzew & Bebeschin have carried out chemical analyses of male and female ascarids. Dry residue, organic matter, albumin, glycogen, lipoids and ash were determined, and the results compared with those obtained for cestodes. R.H.H.

(495b) Smorodinzew & Pavlova found, by chemical analyses, that the eggs of *Diphyllobothrium latum* and *Taenia saginata* contained much higher percentages of dry residue, lipoids and total nitrogen than the entire organisms. The eggs of *Taenia saginata* contained less dry residue, ash and nitrogen, but more lipoids than those of *Diphyllobothrium latum*. R.H.H.

496—Comptes Rendus des Séances de la Société de Biologie.

a. MATHIAS, P., 1936.—" Sur le cycle évolutif d'un trématode digénétique, *Allocreadium angusticolle* (Hausmann)." **122** (25), 1175-1176.

(496a) [A fuller account of this appears in C.R. Acad. Sci., 1937, **205** (15), 626-628; see Helm. Abs., Vol. VI, No. 293a.]

497—Crónica Médica. Valencia.

a. CALATAYUD, R., 1936.—" El índice de Vélez en las tuberculosis quirúrgicas. Sus relaciones con el parasitisme intestinal por vermes." **40**, 207-211.

* Original not available for checking or abstracting.

498—Crónica Médico-Quirúrgica de la Habana.

*a. CALVÓ FONSECA, R., KOURÍ, P. & BASNUEVO, J. G., 1936.—"Porcentaje y distribución geográfica del parasitismo intestinal en Cuba. Provincia: La Habana. Pueblo: Regia." **62**, 15-19.

*b. CALVÓ FONSECA, R., KOURÍ, P. & BASNUEVO, J. G., 1936.—"Porcentaje y distribución geográfica del parasitismo intestinal en Cuba. Provincia: La Habana. Pueblos: Nueva Paz, Batabanó, etc." **62**, 102-115.

499—Cyprus Agricultural Journal.

a. GAMBLES, R. M., 1936.—"Diseases of poultry, with special reference to those occurring in Cyprus." **31** (1), 12-19.

500—Dallas Medical Journal.

*a. ROUSE, M. O. & PATTERSON, C. O., 1936.—"Medical treatment of pin worms." **22**, 110-112.

501—Deutsche Jäger (Der).

*a. KREMBS, J., 1936.—"Die Bedeutung und Durchführung des Vogelschutzes im Kampf gegen die parasitären Wildkrankheiten." No. 1.

b. WETZEL, R., 1936.—"Die Lungen- und Magenwürmer des Rehwildes." No. 22. [Reprint 3 pp.]

(501b) Wetzel gives a brief account of the lungworms and stomach-worms of the roe-deer: *Haemonchus contortus*, *Trichostrongylus colubriformis*, *Dictyocaulus viviparus* and *Muellerius capillaris*, with sufficient information on life-histories to explain their part in the aetiology of disease. B.G.P.

502—Deutsche Medizinische Wochenschrift.

a. KRÖBER, F., 1936.—"Ein Fall von schwerer Chenopodiumölvergiftung der in Heilung ausging." **62** (43), p. 1759.

503—Deutsche Pelztierzüchter.

*a. MÜLLER, A., 1936.—"Die Bedeutung des Lungenhaarwurms, *Cap. aerophila*, und des Blasenhaarwurms, *Cap. plica*, für die Zucht des Silberfuchses." **11** (16), 325-329.

504—Deutsche Schlachthofzeitung.

a. HJORTLUND, S., 1936.—"Fortgesetzte Untersuchungen über das Vorkommen von Trichinen bei Hunden und Katzen in Kopenhagen sowie eine Übersicht über ihr Vorkommen bei dem Menschen und beim Schwein in Dänemark." **36** (16), p. 227.

505—Deutsche Tierärztliche Wochenschrift.

a. SCHOOP, G., 1936.—"Die Jungtierkrankheiten der Edelfüchse." **44** (51), 851-857.

(505a) In his account of the diseases of young thoroughbred foxes, Schoop stresses the importance of ascarids, hookworms and lungworms during the period from one to six months, and gives some information on treatment and control. B.G.P.

* Original not available for checking or abstracting.

506—Deutsche Zeitschrift für Chirurgie.

a. CHRIST, A., 1936.—" Zur klinisch-chirurgischen Bedeutung der Ascariden." **248** (3/5), 387-390.

507—Difesa Sociale.

a. DOMENICI, F., 1936.—" Osservazioni epidemiologiche e medico-legali sull'anchilostomiasi in Provincia di Pavia." **15** (3), 159-164.

508—Ecological Monographs.

a. HARKEMA, R., 1936.—" The parasites of some North Carolina rodents." **6** (2), 151-232.

b. BRANDT, B. B., 1936.—" Parasites of certain North Carolina Salientia." **6** (4), 491-532.

(508a) Harkema's monograph includes the helminth parasites recovered from 287 autopsies carried out in Durham County between October 1933 and April 1935. The rodents examined were: *Sciurus carolinensis carolinensis* (grey squirrel), *Peromyscus leucopus leucopus* (white-footed mouse), *Mus musculus musculus* (" house " mouse), *Rattus norvegicus* (brown rat) and *Sylvilagus floridanus mallurus* (cottontail rabbit). Tables are given for each host showing the number of hosts examined during various months of the year, the percentage infected, and the average number of parasites per host. Seasonal variation was shown to take place in the case of *Cittotaenia pectinata*, *Trichostrongylus affinis* and *T. calcaratus* in the cottontail rabbit; a large increase in the number of worms carried took place during the spring months. The description of *Syphacia peromysci* n. sp., a parasite of the caecum of the white-footed mouse, is appended. This species resembles most closely the type species *S. obvelata* but differs from it by being smaller in many respects; also the mamelons extend beyond the cuticle to a greater distance. This paper includes a list of the parasites of rodents and a large bibliography. J.W.G.L.

(508b) Brandt examined the following species of Salientia for helminth parasites collected throughout the year in Beaufort County: *Rana catesbeiana* (bullfrog), *Rana sphenocephala* (leopard-frog), *Bufo fowleri* (Fowler's toad), *Scaphiopus holbrookii* (spadefoot), *Pseudacris brimleyi* (chorus frog) and *Hyla crucifer* (spring-peeper). The percentage infected with the various parasites found is given. Seasonal variation is discussed. Variation with the size of the host is marked, the larger and presumably older bullfrogs harbouring considerably greater numbers of parasites than smaller individuals. A large new host list for these six species of Salientia is included. J.W.G.L.

509—Ecology.

a. HARWOOD, P. D., 1936.—" The effect of soil types on the helminths parasitic in the ground lizard, *Leiolopisma laterale* (Say)." **17** (4), 694-698.

510—Farmer's Guide to Agricultural Research in 1935.

a. TAYLOR, E. L., 1936.—" Diseases of animals: prevention and treatment. V. Resistance of animals to worm parasites." pp. 53-58.

511—Field.

a. PARNELL, I. W., 1936.—" Redworm in horses. I." **168** (4382), p. 1564.

b. PARNELL, I. W., 1936.—" Redworm in horses. II." **168** (4383), p. 1610.

(511a) [For parts III and IV of this paper see Helm. Abs., Vol. VI, No. 96a & b. For abstract of complete article see Helm. Abs., Vol. VI, No. 146a.]

512—Folia Morphologica.

*a. JANICKI, M. J., 1936.—" Ein seltener Fall des Auftretens von *Dioctophyme renale* (Goeze 1782) mit Berücksichtigung der Veränderungen, welche dieser Parasit in den Organen der Leibeshöhle vom Hunde hervorrief." **6**, 280-299.

513—Fortschritte auf dem Gebiete der Röntgenstrahlen.

a. MAINZER, F., 1936.—" Ueber isolierte Lungenbilharziose, besonders im Röntgenbild, und ihre Differentialdiagnose gegenüber der Lungentuberkulose." **54** (2), 154-173.

b. MAINZER, F. & YALOUSSIS, E., 1936.—" Ueber latente Lungenerkrankung bei manifester Blasenbilharziose. (Nach Röntgenuntersuchungen)." **54** (4), 373-381.

c. WIGAND, R., 1936.—" Zur Röntgendiagnostik des im Menschen parasitierenden Askaris." **54** (6), 607-610.

514—Frankfurter Zeitschrift für Pathologie.

a. ISCHANOW, C. S., 1936.—" Über den Echinococcus des Herzens." **50** (2), 123-125.

515—Fukuoka-Ikwadaigaku-Zasshi.

a. OKABE, K., 1936.—" Zur Entwicklungsgeschichte von *Exorchis oviformis* Kobayashi." **29**, 211-221. [In Japanese: German summary p. 5.]

(515a) In Fukuoka a cercaria occurs in *Stenothyra japonica* which under experimental conditions encysts under the scales of young Golden Carp. These are identified by Okabe as belonging to the genus *Exorchis*. The cysts occur also in the fishes *Carassius auratus*, *Oryzias latipes*, *Mogrunda obscura*, *Cobitis biwae*, *Misgurnus anguillicaudatus*, *Pseudorasbora parva* and *Acheilognatus moriokae*. R.T.L.

516—Gazzetta Internazionale di Medicina e Chirurgia.

*a. MAZZITELLI, M., 1936.—" In quali casi la parassitosi da anchilostoma assume qualifica di malattia professionale." **46**, 674-678.

517—Gazzetta degli Ospedali e delle Cliniche.

a. SATULLO, R., 1936.—" Sull'echinococco primitivo del polmone." **57** (41), 973-975.

* Original not available for checking or abstracting.

518—Giornale di Batteriologia e Immunologia.

a. CASSATA, C., 1936.—" Azione dei raggi mitogenetici sullo sviluppo delle uova di *Anchilostoma duodenale*." **17** (5), 658-660.

519—Giornale di Clinica Medica.

*a. BASSI, U. & MOSETTI, A., 1936.—" Le porfirine fecali nelle emorragie occulte del tubo digerente (da ulcera, neoplasie, anchilostomiasi, ecc.)." **17**, 784-800.

*b. CIRLA, P., 1936.—" L'anchilostomiasi tra i contadini. (Osservazioni su 200 casi nel circondario milanese)." **17**, 833-844.

*c. CIRLA, P., 1936.—" L'anchilostomiasi tra i contradini." **17**, p. 1077.

520—Giornale Italiano di Malattie Esotiche e Tropicali ed Igiene Coloniale.

a. RANGONI, G., 1936.—" La profilassi della schistosomiasi." **9** (10), 227-233; (11), 261-267; (12), 272-277.

(520a) The first section of Rangoni's article gives a general account of the human schistosomes and the diseases they cause; the second deals with control methods, while the third discusses in more detail the organization of control in Egypt and the possibility of adopting similar measures in the Italian colonies. *S. haematobium* is present in Abyssinia and Somaliland (in the latter the only numerous snails are species of *Planorbis*, *Ampullaria* and *Blanfordia*), and there is a small focus of *S. mansoni* in Eritrea. B.G.P.

521—Giornale di Medicina Militare.

*a. BRIGUGLIO, S., 1936.—" Un caso di echinococcosi multipla." **84**, 47-51.

*b. BESTA, B. & MARIANI, G., 1936.—" Le parassitosi intestinali in Somalia studiate nella popolazione metropolitana durante l'anno 1935." **84**, 436-452.

*c. POLTRONIERI, M., 1936—" Grossa cisti di echinococco del lobo inferiore del polmone sinistro, trattata col metodo valdoni." **84**, 1203-1206.

522—Giornale del Medico Pratico.

*a. FARELLO, G., 1936.—" Un caso di echinococco muscolare." **18**, 240-241.

523—Gyógyászat.

*a. RÉMY, F., 1936.—[Therapy of oxyuriasis and ascariasis.] **76**, 506-507.

524—Helvetica Medica Acta.

*a. NISSEN, R., 1936.—" Zur Indikation und Technik der Operation solitärer intrathorakaler Echinokokkuszysten. (Zugleich ein Beitrag zur Frage der mediastinalen Echinokokken)." **3**, 295-307.

*b. PEDOTTI, F., 1936.—" Circa un caso di echinococco delle ossa pelviche. (Echinococco idatidoso)." **3**, 856-861.

525—Hospital. Rio de Janeiro.

a. SILVA, C. DA, 1936.—" Infestação por helmintos intestinaes em creanças de idade escolar em Teresina (Piauí)." 8th Year, **2** (11), 1331-1338.

* Original not available for checking or abstracting.

526—Imperial Bureau of Agricultural Parasitology. Notes and Memoranda.

a. ANON, 1936.—" Recent developments in the control of *Heterodera marioni*." No. 11, 6 pp.

(526a) Seventeen references to literature dealing with the control of *H. marioni* published subsequent to the monograph " The root-infesting eelworms of the genus *Heterodera* " are listed. A brief summary is given of the principal findings reported in the literature. The methods of control have been classified into three groups: (i) physical methods, e.g., heat, desiccation, (ii) chemical methods, and (iii) biological methods, e.g., resistant and trap crops and cultural practice. M.J.T.

527—Insekto Interesa.

a. AUTUNO, 1936.—" Elephantiasis and *Culex*." **2** (3), 33-34. [In Chinese.]

528—International Clinics.

a. HANES, F. M., 1936.—" Trichinosis complicated by hypoproteinemia." Series 46, **4**, 67-73.

529—Japanese Journal of Medical Sciences. IV. Pharmacology.

a. KO, E., 1936.—" Experimentelle Untersuchungen über den Augendruck des Kaninchens. III. Mitteilung: Über den Einfluss verschiedener Anthelminthica auf den Augendruck des Kaninchens." [Abstract of a paper communicated to the 10th Annual Meeting of the Japanese Pharmacological Society, Okayama. 1936.] **9**, 79*-80*.

(529a) Testing the effect of various anthelmintics in rabbits on blood pressure and intra-ocular pressure, Ko found no effect from intravenous injections of Santonin below 0·01 g. per kg. body weight. Doses of 0·02 g. and over caused a rise in both pressures, the intra-ocular being weaker. Filicin (0·01 to 0·1 g. per kg.) depressed both pressures, the intra-ocular lower than the blood pressure. Picric acid (0·005 to 0·02 g. per kg.) depressed the intra-ocular but raised the blood pressure, while heavier doses (0·1g.) depressed both after a preliminary rise. B.G.P.

530—Journal of Agriculture. Quebec.

a. SWALES, W. E., 1936.—" Two important diseases of ducks in Quebec." **39** (11), 13, 40-43.

b. SWALES, W. E., 1936.—" Some aspects of the sheep parasite problem of Quebec." **40** (1), 13, 33.

(530a) *Tetrameres crami* is a common and widespread nematode in ducks in Canada. The amphipods *Gammarus fasciatus* and *Hyalella knickerbockeri* are its intermediate hosts. Swales suggests that the introduction of fish into duck ponds would control the disease by eliminating or reducing the amphipods. R.T.L.

(530b) Swales mentions the more recent researches carried out in South Africa and Australia on the treatment of worms in sheep and points out that capsuled and powdered drugs should be given immediately following a dose consisting of half a teaspoonful of 10% copper sulphate. A dose for an adult

sheep consisting of 0·5 g. of arsenic trisulphide in 50 c.c. of 2% copper sulphate is not only effective against stomach worms and tapeworms but is likely to be beneficial against nodular worms. An efficient drenching bottle is illustrated. D.O.M.

531—Journal of the Alabama Academy of Science.

a. WILLIAMS, S. J., 1936.—"Human infestation with intestinal parasites in Sumter County, Alabama. A progress report." [Abstract of paper presented at the 13th Annual Meeting of the Alabama Polytechnic Institute, March, 1936.] 8, 24-25.

b. SMITH, S., 1936.—"Life-cycle studies of *Cercaria hodgesiana* and *Cercaria melanophora*." [Abstract of paper presented at the 13th Annual Meeting of the Alabama Polytechnic Institute, March, 1936.] 8, 30-32.

c. BRYANT, F., 1936.—"Oogenesis and spermatogenesis in *Cercaria macrostoma* Faust, 1918." [Abstract of paper presented at the 13th Annual Meeting of the Alabama Polytechnic Institute, March, 1936.] 8, p. 33.

(531a) The total incidence of hookworm is lower than in neighbouring counties though whites are more heavily infected than the coloured folk. More Ascaris were, however, found in the coloured population. P.A.C.

(531b) *Cercaria hodgesiana* develops in the snail *Goniobasis vicina*, the percentage infection being about 1%. After emergence they remain attached to the snail or some near-by object or sink to the bottom as they are unable to swim. Experimental infections show the adult to be *Proterometra hodgesiana* n. sp., a parasite of centrarchid fish. *C. melanophora* is the infective stage of *P. macrostoma*, a parasite of *Huro floridana*. P.A.C.

532—Journal of Comparative Pathology and Therapeutics.

a. STEWART, W. L. & PONSFORD, A. P., 1936.—"Border pining in sheep. II." 49 (1), 49-62.

(532a) It is suggested that 'border pining' in sheep in Northumberland is due to a combination or interaction of malnutrition and gastroparasitic infection. Although Trichostrongylinae were the apparent cause of the main symptoms of acute pining the number of worms present during the winter months did not account for the characteristically persistent anaemia and emaciation of chronic pining. Analyses of pastures on farms on which 'pining' occurred suggested deficiency in calcium, phosphorus and iron.

R.T.L.

533—Journal of the Egyptian Medical Association.

a. ABDEL SHAFI, M., 1936.—"Historical review of Egyptian splenomegaly and allied conditions. Part I." 19 (10), 561-591; (11), 631-651.

b. ABDEL SHAFI, M., 1936.—"Critical study of the different theories on the aetiology of 'Egyptian splenomegaly'. Part II." 19 (11), 652-672.

c. ABDEL MAGID, I., 1936.—"Egyptian splenomegaly in Edfina." 19 (11), 689-693.

534—Journal of the Faculty of Science. Hokkaido Imperial University Series VI. Zoology.

a. IKEDA, K. & MAKINO, S., 1936.—"Studies on the sex and chromosomes of the oriental human blood fluke, *Schistosomum japonicum* Katsurada." 5 (1), 57-71.

(534a) The chromosome complex of *Schistosoma japonicum* is 16 chromosomes of which two pairs are atelomitic V-shaped and six pairs are telomitic rod-shaped showing intergrading size. Male and female cercariae could not be distinguished morphologically. The causes of the predominance of unisexual parasitism in the intermediate host and of the failure of males and females to mature in the definitive host in cases of unisexual infection are discussed. R.T.L.

535—Journal of the Marine Biological Association of the United Kingdom.

a. REES, W. J., 1936.—" Note on the ubiquitous cercaria from *Littorina rudis*, *L. obtusata* and *L. littorea*." **20** (3), 621-624.

(535a) Rees describes a cercaria which is very similar to *Cercaria ubiquitoides* Stunkard, differing mainly in the arrangement of the gland cells. It occurs commonly in the snails *Littorina rudis*, *L. obtusata*, and rarely in *L. littorea*. It is suggested, but not proved, that the adult form is *Spelotrema simile*, which is common in the gulls of the Plymouth region. E.M.S.

536—Journal de Médecine de Bordeaux et de la Région du Sud-Ouest.

a. LABORDE, 1936.—" Le trichocéphale, cause trop souvent méconnue de l'anémie." **113** (17), 482-484.

537—Journal of the Oklahoma Medical Association.

*a. BRADLEY, C. E. & JOHNSON, R., 1936.—" Intestinal parasites in children of Tulsa and vicinity." **29**, 355-358.

538—Journal of Pharmacology and Experimental Therapeutics.

a. FORBES, J. C., NEALE, R. C. & SCHERER, J. H., 1936.—" A liver preparation protecting against necrosis from chloroform or carbon tetrachloride administration." **58** (4), 402-408.

539—Journal of the Philippine Islands Medical Association.

a. AFRICA, C. M. & GARCIA, E. Y., 1936.—" Observations on the behaviour of Ascaris eggs deliberately introduced into the peritoneal cavity of monkeys, with special reference to the possibility of internal autoinfestation." **16** (12), 739-749.

(539a) Africa & Garcia find that when Ascaris eggs are introduced into the peritoneal cavity of a host they are surrounded by the mesentery with nodular formation. Here they may develop to the infective stage, but the authors believe that it would be almost impossible for them to hatch and that therefore there is little danger of auto-infection from such a source. P.A.C.

540—Journal de Radiologie et d'Électrologie.

*a. TILLIER, R., LE GÉNISSEL, M. & GOINARD, P., 1936.—" Étude radiologique de l'hydatidose." **20**, 273-302.

* Original not available for checking or abstracting.

541—Journal of the Royal Army Veterinary Corps.

a. OXSPRING, G. E., 1936.—"Parasitic gastritis in horses." **7** (2), 100-101.

(541a) Oxspring records three further cases [See also Helm. Abs., Vol. III, No. 576c] of *Trichostrongylus axei* causing parasitic gastritis in horses. The parasites were found in scrapings from the gastric mucosa of these horses, while healthy horses were not found to be infected. J.W.G.L.

542—Journal of Science of the Hiroshima University. Series B, Division I. Zoology.

a. OZAKI, Y., 1936.—"Two new trematodes from tortoise *Geoemyda spengleri* (Gmelin)." **4**, 81-90.

(542a) Ozaki describes *Mesocoelium geoemydae* n. sp. from the small intestine, and *Polystomoides megaovum* n. sp. from the urinary bladder of *Geoemyda spengleri*. These are contrasted with their nearest related species, which are respectively *Mesocoelium lanceatum* Goto & Ozaki, and *Polystomoides hassalli* Goto. E.M.S.

543—Journal of the Shanghai Science Institute. Section IV.

a. YOUNG, S., 1936.—"Studies on the final host of *Fasciolopsis buski* and its development in the intestine of the pig." **2**, 225-236.

(543a) Young finds that pigs are the most suitable final hosts for *Fasciolopsis buski*, eggs being discharged in the faeces 3 months after infection. Dogs, monkeys, cats and rabbits could occasionally be infected with encysted cercariae, but in these hosts the worms did not reach maturity. Sheep and guinea-pigs could not be infected. A.E.F.

544—Journal of the South Carolina Medical Association.

*a. O'DANIEL, G. R., 1936.—"Study of hookworm disease." **32**, 151-153.

545—Journal of the Tennessee Academy of Science.

a. HARWOOD, P. D., 1936.—"Notes on Tennessee helminths. III. Two trematodes from a kingfisher." **11** (4), 251-256.

(545a) Harwood records the occurrence in Tennessee kingfishers (*Megaceryle alcyon*) of *Cathaemasia reticulata* n. comb. (=*Distomum reticulatum* Wright, 1879), one of the collarless echinostomes, and of an alariid, *Crassiphiala ambloplitis* Hunter, 1933. E.M.S.

546—Journal d'Urologie Médicale et Chirurgicale.

a. GIRAUD, D. & CROSNIER, R., 1936.—"Bilharziose vésicale et filariose urinaire." **42** (6), 501-510.

547—Jugoslovenski Veterinarski Glasnik.

a. BABIĆ, I. & WERTHEIM, P., 1936.—"Istraživanje metiljavosti. I. *Galba truncatula* Müller." **16** (9), 469-473.

* Original not available for checking or abstracting.

b. BABIĆ, I., 1936.—" Istraživanje metiljavosti. II. Kretanje metiljavosti u Savskoyj Banovini od 1926/27-1935/36 i njeni uzroci." **16** (12), 618-629.

(547a) [Researches on liver-fluke disease. I. *Galba truncatula* Müller.]

(547b) [Researches on liver-fluke disease. II. The spread of liver-fluke in the Banat Province (Yugoslavia) from 1926-1936, and its causes.]

548—Kinderärztliche Praxis.

a. WOLFF, S., 1936.—" Beitrag zur Kasuistik von Fehldiagnosen infolge Erkrankung an Askariden." **7** (8), 359-360.

549—Klinicheskaya Meditsina.

*a. KAGALNITSKIY, G. M., 1936.—[Value of Casoni reaction.] **14**, 1842-1843.

550—Kongelige Norske Videnskabers Selskabs Forhandlinger.

a. ALLGÉN, C., 1936.—" Zur Kenntnis norwegischer Nematoden. IV. Das Männchen des *Thoracostomopsis barbatum* Ditlevsen." **8**, 44-46.

b. ALLGÉN, C., 1936.—" Zur Kenntnis norwegischer Nematoden. V. Weitere neue oder wenig bekannte freilebende marine Nematoden aus der Strandzone bei Tarva." **8**, 47-50.

(550a) Allgén gives a short description of the hitherto undescribed male of the marine nematode *Thoracostomopsis barbatum* Ditl., found near Tarva, Norway. T.G.

(550b) Allgén reports on some marine nematodes collected near Tarva, Norway, and describes the following new forms: *Enoplolaimus* (*donsi*)-*tarvae* n. sp., *Halichoanolaimus paramenzeli* n. sp., *Spirina pilosa* n. sp. and *Microlaimus donsi* n. sp. T.G.

551—Laveran.

*a. KOURÍ, P. & BASNUEVO, J. G., 1936.—" Algunas consideraciones sobre ' Distomatosis hepática ' en Cuba." **3** (2/3), 40-45.

552—Lucknow University Studies.

a. THAPAR, G. S., 1936.—" Parasitic worms and disease : lectures on certain aspects of helminthology." Faculty of Science, 1934-35, No. 3, v + 46 pp.

553—Lyon Chirurgical.

a. MARTIN, L., 1936.—" Récidive d'un kyste hydatique du rein, ouvert dans le bassinet. Rein à double uretère. Néphrectomie. Guérison." **33** (4), 447-449.

554—Lyon Médical.

a. BOCCA, C. R. & DUVAL, R., 1936.—" A propos de quelques cas graves d'ankylostomose." **157** (20), 577-585.

* Original not available for checking or abstracting.

555—Maandsskrift for Dyrlaeger.

a. ROTH, H., 1936.—" Er der Mulighed for praenatal Overgang af Trikiner fra Moder til Foster ?" **48** (1), 19-25.

(555a) [A fuller account of the work reported in this paper appears in Zbl. Bakt., 1. Abt. Orig. ; see Helm. Abs., Vol. V, No. 173b.]

556—Märkische Tierwelt.

a. HEINZE, K., 1936.—" Die bisher aus der Mark Brandenburg sicher bekannten Gordiiden." **2** (1), 25-31.

(556a) Heinze discusses the Gordiids which have been recorded from the Mark of Brandenburg. He points out that little is known about their distribution and that the material, upon which his observations are based and which was provided by the Berlin Museum, comprised several specimens representing a few species only collected mainly during the latter half of last century. According to the author, it is striking that species commonly found in neighbouring districts of the Mark, e.g., Pomerania, are apparently lacking in Brandenburg, although the ecological conditions are similar. The forms known, with certainty, to occur are *Gordius aquaticus*, *G. setiger*, *G. albopunctatus* and *G. mülleri*. In each case the host, where known, and the localities are stated. The author considers that specimens recorded from the Mark as *G. stellatus* belong probably in part to *G. setiger* and in part to *G. albopunctatus* and that the name *stellatus* should be kept only for specimens from the Tirol. J.N.O.

557—Marseille Médical.

a. GAILLARD, R. & SICE, A., 1936.—" Les arthrites purulentes provoquées par *Dracunculus medinensis* et leurs séquelles." **73** (36), 724-730.

558—Meddelelser fra Statens Forsøgsvirksomhed i Plantekultur, Kjøbenhavn.

a. ANON, 1936.—" Rodaalens Levevis og Bekaempelse." No. 256, 5 pp.

(558a) [For abstract of this paper see Helm. Abs., Vol. VI, No. 377a.]

559—Medical Journal of Australia.

a. HEYDON, G. A. M., 1936.—" Oxyuriasis : a possible main source of infestation." [Correspondence.] 23rd Year, **2** (26), p. 899.

(559a) From observations on Oxyuris (*Passalurus ambiguus*) in the rabbit Heydon is of the opinion that eggs are laid either continuously or periodically within the body and give rise to adult worms in the gut. R.T.L.

560—Medical Life.

a. BRIM, C. J., 1936.—" Trichinosis : flesh of the hog. A chapter in the medical culture of the ancient Hebrews." **43** (11), 515-530.

561—Medicina. Kaunas.

a. STARKUS, A., 1936.—" Askaridos ir ju žalingumas žmogaus organizmui." **17** (9), 649-662. [German summary p. 662.]

b. ZUBINAS, F., 1936.—" Echinokokkus et abscessus hepatis atsitikimas." **17** (10), 746-749.
c. BIELSKUS, L., 1936.—" Ileus verminosus atsitikimas." **17** (11), 881-883.

(561a) [Ascariasis and its harmful effects on the human organism.]

(561b) [A case of echinococcus and abscess of the liver.]

(561c) [A case of intestinal obstruction due to Ascaris.]

562—Medicina. México.

a. DAMPF, A., 1936.—" Los ceratopogónidos o jejenes (Insecta, Diptera, fam. Ceratopogonidae) como transmisores de filarias." **16** (268), 227-233.

(562a) [For abstract of this paper see Helm. Abs., Vol. V, No. 303a.]

563—Medicina de Hoy.

a. CALVÓ FONSECA, R., KOURÍ, P. & BASNUEVO, J. G., 1936.—" Porcentaje y distribución geográfica del parasitismo intestinal en Cuba. Provincia : Matanzas. Pueblo : Bolondron." **1** (9), 393-397.

564—Medicina Ibera.

a. NAVARRO BLASCO, A., 1936.—" Interesante caso de quiste hidatídico de pulmón." Año 20, Tomo 30, **2** (978), 161-163.
b. PARDINA, J. M., 1936.—" Parasitosis intestinal infantil." Año 20, Tomo 30, **2** (984), 319-326.

565—Medicina del Lavoro.

*a, BASSI, U., 1936.—" Quadro ematologico e numero dei vermi nella anchilostomiasi." **27**, 240-247.

566—Medizinische Welt.

a. MAYER, R. M., 1936.—" *Botriocephalus latus* als exogener Faktor der Epilepsie im Sinne des Erbgesundheitsgesetzes." **10** (40), 1453-1454.

567—Meldinger fra Norges Landbrukshøiskole.

a. ØKLAND, F., 1936.—" Økologiske undersøkelser av den store leveriktes mellemvert *Limnaea truncatula* på Jaeren." **16**, 449-470. [German summary pp. 467-469.]

(567a) Økland found *Limnaea truncatula* occurring in 61 biotopes in Jaeren (southwestern Norway) during his investigations, which extended from the 3rd July to 5th August, 1935. He also had 69 control biotopes from which the snail was absent. He rejects the idea of indicator-plants for this snail, since any selected plant can be commonly found without the snail and vice versa. Both incidence and intensity of distribution are greater on loamy substrates. Of the 61 biotopes 48 gave an acid *p*H-reaction, some as low as *p*H5·6, but the snail will tolerate alkalinity up to *p*H8·6 at least and there is no obvious relationship between *p*H and frequency. B.G.P.

* Original not available for checking or abstracting.

568—Mémoires de l'Académie de Chirurgie.

*a. DELOM, P., 1936.—" Contribution à l'étude de l'éléphantiasis dit ' tropical '." **62**, 697-706.
*b. STOÏANOFF, 1936.—" L'échinococcose en Bulgarie." **62**, 783-785.
*c. BRUN & JAUBERT DE BEAUJEU, A., 1936.—" Quelques réflexions sur les kystes hydatiques du poumon et leurs images radiographiques." **62**, 1076-1082.

569—Mémoires du Musée Royal d'Histoire Naturelle de Belgique.

a. WAELE, A. DE & DEDEKEN, L., 1936.—" Le phenomène de l'évagination chez *Cysticercus bovis* et la migration du parasite chez l'homme." Ser. 2, Fasc. 3, 369-373.
b. DOLLFUS, R. P., 1936.—" Sur un acanthocéphale du genre *Mediorhynchus* H. J. Van Cleave d'une outarde à huppe noire *Choriotis arabs* (L.) du Sahel Mauritanien." Ser. 2, Fasc. 3, 421-443.
c. PÉREZ, C., 1936.—" Atrophie des glandes genitales de la turritelle sous l'influence du parasitisme par les sporocystes d'un trematode." Ser. 2, Fasc. 3, 539-547.

(569a) De Waele & Dedeken describe the artificial evagination of *Cysticercus bovis* from a heavily infested ox in solutions of bile salts, and its behaviour in digestive juices. As in de Waele's earlier work on *C. pisiformis*, the experiments show that the cholate radicle is the essential factor in bile salts for evagination, which proceeds more slowly in *C. bovis*, however. As before, gastric juice prepares the cystic part of the parasite for digestion by pancreatic juice ; but the cyst remains intact in gastric juice, thus protecting the scolex from its action. B.G.P.

(569b) Dollfus gives a full, illustrated re-description of *Mediorhynchus taeniatus*, collected by Monod from a bustard in Mauritania. To the same genus is transferred *Empodius empodius* (Skrjabin), the generic name *Empodius* Travassos being suppressed. The species *Echinorhynchus otidis-houbarae*, usually ascribed to Miescher, is here ascribed to Diesing and transferred also to *Mediorhynchus*. B.G.P.

570—Memorias do Instituto Butantan.

a. TOLEDO ARTIGAS, P. DE, 1936.—" Montagem de helminthos e pequenos arthropodos. Novo methodo, simples e efficiente." **10**, 65-70. [In English pp. 71-75.]
b. TOLEDO ARTIGAS, P. DE, 1936.—" Estudos helminthologicos. I. *Paraoxyuronema brachytelesi* g. n., sp. n., parasita de *Brachyteles arachnoides* (Geoffr., 1806) ; Oxyuronemidae, fam. n. (Nematoda)." **10**, 77-85.

(570a) Toledo Artigas has evolved a new technique for making permanent mounts of nematodes, *in toto*. The specimen is first treated with acetic acid and then with creosote in which it remains until thoroughly impregnated. It is then mounted in a mastic-creosote fluid prepared thus : 30 c.c. of 95% alcohol are added to 10 g. of pulverized mastic resin, from *Pistacia lentiscus*, and the mixture left for 24 hours at 55°C. in an incubator, after which it is cooled and centrifuged. The sediment is separated by decantation and 30 c.c. pure beech tar creosote are added to the alcoholic mastic and the whole

* Original not available for checking or abstracting.

mixture placed in an incubator at 55°C. until there is complete evaporation of the alcohol. The resulting fluid is clear and syrupy, becoming yellowish when solid. After mounting is completed the preparation is kept in an incubator at 50-55°C. to allow the medium to harden. Permanent, stained preparations may be obtained by the use of hydrochloric carmine or Semichon's acetic carmine. The author has, in addition to nematodes, successfully mounted cestodes, trematodes and small arthropods by the same technique.

J.N.O.

(570b) Toledo Artigas gives a morphological description of *Paraoxyuronema brachytelesi* n. g., n. sp., recovered from the large intestine of the primate, *Brachyteles arachnoides* from Rio Doce, Piedade, São Paulo. The author discusses the systematic position of the parasite and its analogies with *Oxyuronema atelophora* Kreis, 1932 and proposes the erection of Oxyuronemidae n. fam. for the genera *Oxyuronema* and *Paraoxyuronema*. Definitions are given of the new genus and new family, the latter being discussed in a general consideration of the systematics of the RHABDIASATA Cram, 1927. J.N.O.

571—Memorias do Instituto Oswaldo Cruz.

a. TORRES, C. M. & PINTO, C., 1936.—" Processos pathogenicos determinados pelos trematoides *Eurytrema fastosum* e *E. coelomaticum* (Dicrocoelidae)." **31** (4), 731-746. [English summary pp. 743-745.]

b. FREITAS, J. F. TEIXEIRA DE & LENT, H., 1936.—" O genero *Monopetalonema* Diesing, 1861 (Nematoda : Filarioidea)." **31** (4), 747-757.

(571a) *Eurytrema fastosum* in cats produces chronic inflammatory changes in some of the interlobular bile ducts. The epithelial lining of the bile ducts is fairly well preserved ; the fibro-elastic coat is thickened and occasionally contains many wandering cells. There may be dilatation and hyperplasia of the biliary glands or mucous crypts adjoining the interlobular bile ducts. In Brazilian cattle *Eurytrema coelomaticum* is very common, giving rise to marked inflammatory changes in the interlobular ducts with thickening of their walls. The formation of a curious granuloma with a " pallisade " arrangement of the epitheloid cells in the free cells of the ducts may produce obliteration and obstruction. Chronic interstitial pancreatitis is marked in the vicinity of the pancreatic ducts affected. Eggs may penetrate the gland parenchyma. A series of microphotos illustrates the paper. R.T.L.

(571b) The genus *Monopetalonema* has as synonyms *Politospiculum* and *Ornithosetaria*. The type species which is described by the author is *M. alcedinis* (Rud. 1819) of which *Filaria physalura* is a synonym. Other species to be placed in the genus are *Politospiculum arthricola* Skrjabin, 1916 and *Ornithosetaria angustispiculum* Sandground, 1933. R.T.L.

572—Memorias de la Sociedad Cubana de Historia Natural " Felipe Poey."

a. PÉREZ VIGUERAS, I., 1936.—" Notas sobre la fauna parasitologica de Cuba. Parte I : Vermes." **10** (2), 53-86.

(572a) Pérez Vigueras continues his check-list of Cuban parasites [see Helm. Abs., Vol. IV, Nos. 591b & 591d] with a list of 96 species of nematodes and 5 species of Acanthocephala. He appends some notes on species *incertae sedis*. B.G.P.

573—Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie.

a. BÜRGI, K., 1936.—" Ein Fall von Leberdistomatose (*Fasciola hepatica*). Kasuistik und Klinik dieser Erkrankung." **44** (4), 488-537.

574—Monatsschrift für Kinderheilkunde.

a. BRÜNING, H., 1936.—" Eingeweidewürmer bei Kindern." **67** (6), 448-454.

575—Monthly Bulletin of the Bureau of Health, Manila.

a. NOLASCO, J. O. & GACOBA, C., 1936.—" Helminthiasis in pupils of the Balala Elementary School." **16** (7), 277-280.

576—Münchener Tierärztliche Wochenschrift.

a. HEIDEGGER, E., 1936.—" Die Egelseuche des Geflügels in Bayern." **87** (28), 325-329.

(576a) Heidegger gives a general account of prosthogonimiasis in poultry, and a preliminary outline of his own work on this problem in farms bordering lakes in the Wasserburg district of Bavaria. He finds *Prosthogonimus pellucidus* and *P. longus* to be the commonest species, but *P. cuneatus* and a very small unidentified species, also occur. The dragonflies which act as carriers locally are being identified. Symptoms are the laying of eggs without shells, and the formation of concretions in the oviducts. B.G.P.

577—Nagasaki Igakkwai Zassi.

*a. SUMIDA, S. & MORIMOTO, T., 1936.—" Ein klinisch sowie endemiologisch interessanter Fall von Paragonimiasis westermanni in der Präfektur Nagasaki." **14**, 665-666.

*b. MIURA, C. & YAMAZAKI, S., 1936.—" Über die Lungenparagonimiasis im Kreis Minamitakaki, Bezirk Nagasaki, wo sie bisher als eine äusserst seltene Krankheit betrachtet wurde." **14**, p. 1487.

*c. IWATA, Y. & USUKU, S., 1936.—" Zwei Fälle von Ascariasis in welchen interessante Röntgenbilder konstatiert wurden." **14**, p. 1859.

578—Natuurwetenschappelijk Tijdschrift.

a. WAELE, A. DE,—" Voorloopige mededeeling over cultuurproeven van Cestoden." **18** (7), 266-268. [French summary p. 268.]

(578a) [For abstract of this paper see below No. 674b.]

579—New Orleans Medical and Surgical Journal.

a. FAUST, E. C., 1936.—" Some public health aspects of parasitic infections in the Southern United States, with special reference to Louisiana." **89** (5), 213-221.

580—Nordisk Medicinsk Tidskrift.

*a. SPAAK, R., 1936.—[Biology of oxyuris and therapy of oxyuriasis.] **11**, 951-956.

* Original not available for checking or abstracting.

581—Novitates Zoologicae.

a. ROTHSCHILD, M., 1936.—" Preliminary note on the trematode parasites of *Peringia ulvae* (Pennant) 1777." **39** (4), 268-269.

b. ROTHSCHILD, M., 1936.—" A note on the variation of certain cercariae (Trematoda)." **40** (1), 170-175.

(581a) Rothschild lists 23 cercariae and metacercariae from this gastropod. Descriptions are to be published later. E.M.S.

(581b) Rothschild describes in detail the normal pigmentation of *Cercaria ephemera* Lebour, and of allied species of cercariae. She contrasts with these the pigmentation of an abnormal infection of *C. ephemera*. The rediae are normal, and apart from the pigmentation, the cercariae are also normal and encyst in the usual manner, except for slower diffusion of pigment. E.M.S.

582—Nuovo Ercolani.

a. SALINA BORELLO, V., 1936.—" Un caso di parassitismo multiplo da varietà di *Anomotaenia depressa* (v. Sieb.) nel rondone (*Cypselus apus*)." **41** (4), 163-168.

b. SIMONELLI, A., 1936.—" Sulla filariosi in Umbria. (Nota clinica e terapeutica)." **41** (4), 169-178.

c. PAGNINI, U., 1936.—" Contributo all'ispezione sanitaria dei pesci conservati. Infestazione da *Ascaris capsularia* (Rud.) nel merluzzo salato ed essiccato (baccalà)." **41** (12), 550-556.

(582a) Salina Borello describes an infestation of the swift, *Cypselus apus* with *Anomotaenia depressa*, in which two varieties of the cestode occurred. One was normal. In the other there was a sudden dilatation behind the first five segments. All its other morphological characters agreed with those of *A. depressa*. He discusses the cause of this dilatation. P.A.C.

(582c) Pagnini reports an infection of larval " Ascaris capsularia " in the dried, salted cod known in Italian as " Baccalà." The report is of interest since the larvae were still alive, having survived the curing process. B.G.P.

583—Ohio State Medical Journal.

a. WAGNER, E. A., 1936.—" *Strongyloides stercoralis*." **32** (9), 826-829.

584—Onderstepoort Journal of Veterinary Science and Animal Industry.

a. FOURIE, P. J. J., 1936.—" A contribution to the study of the pathology of oesophagostomiasis in sheep." **7** (1), 277-347.

b. ORTLEPP, R. J. & MÖNNIG, H. O., 1936.—" Anthelmintic tests, chiefly with tetrachlorethylene, for the removal of the hookworm, *Gaigeria pachyscelis*, from infested sheep, with observations on the effects of this drug on other parasitic nematodes." **7** (2), 399-417.

(584a) Fourie found that the larvae of *Oesophagostomum* enter the mucous membrane of the intestine of sheep in 12 hours after infection and then become encysted against the muscularis mucosae which appears to act as a barrier to their further penetration. In about 5 days larvae in the 4th stage emerge from the cysts and, normally, migrate back to the lumen of the intestine. For reasons which are not understood, these larvae may, however, penetrate

the muscularis mucosae and migrate in the submucous tissues where an intense eosinophilic reaction results in the formation of nodules. It is thought that most of the imprisoned larvae die within the nodules and that very few regain the lumen of the gut. The paper also includes observations on the haematology of infected sheep and a discussion of the factors concerned in the pathogenesis of oesophagostomiasis. D.O.M.

(584b) Ortlepp & Mönnig's anthelmintic tests on infected sheep show that tetrachlorethylene up to 15 c.c., carbon tetrachloride up to 6 c.c. and pyrethrum extract up to 5 c.c. were ineffective for *Gaigeria pachyscelis*. Immediately following 10 c.c. of 2% copper sulphate, tetrachlorethylene in doses of 10 c.c. in mineral oil was very effective and n-butyl chloride in 10 c.c. doses was partially effective in removing *G. pachyscelis*. Field trials showed that 97% of hookworm cases and 83% of cases of wireworm, trichostrongyle and nodular worms were cleared of these helminths by three doses of tetrachlorethylene following copper sulphate given at 10 to 14 day intervals. The toxicity of tetrachlorethylene is discussed and the bad effects such as coughing, choking and giddiness can be overcome by using soap emulsions of the drug. J.W.G.L.

585—Ornithologische Monatsberichte.

a. EICHLER, W., 1936.—" Ameisen als Zwischenträger von Vogelbandwürmern." **44** (6), 173-175.

(585a) Eichler suggests the possibility of ants acting as intermediate hosts for several avian species of *Raillietina* as these insects form a large part of the diet of many birds. Ants have been incriminated as vectors for *R. frontina*, *R. echinobothrida* and *R. tetragona*. P.A.C.

586—Orvosi Hetilap.

a. VEREBÉLY, jr., T., 1936.—" Agyi daganatot utánzó cysticercosis." **80** (44), 1035-1037.

(586a) [Cysticercosis simulating cerebral tumour.]

587—Papers of the Michigan Academy of Science, Arts and Letters.

a. VERGEER, T., 1936.—" The eggs and the coracidia of *Diphyllobothrium latum*." **21**, 715-726.

(587a) Vergeer has studied the factors which influence the size of eggs of *Diphyllobothrium latum*, and states that no feature of the egg presents reliable characters for the identification of the species. The relation between temperature and the time required for hatching is then discussed. The age of the egg does not influence the rate of development. The temperature of the water also determines the length of life of the coracidium ; its greater length of life in colder waters is a probable reason for the increased incidence of *D. latum* in temperate and northern regions. The North American hosts of the procercoid are : *Diaptomus oregonensis*, *D. sicilis* and *D. siciloides*.

A.E.F.

588—Peking Natural History Bulletin.

a. TANG, C. C., 1936.—" A survey of helminth fauna of cats in Foochow." **10** (3), 223-231.
b. WINFIELD, G. F. & CHANG, C. F., 1936.—" *Raillietina* (*Raillietina*) *sinensis* a new tapeworm from the domestic fowl." **11** (1), 35-37.
c. TING, H. P., 1936.—" On the extent of infestation by intestinal helminths of the chicken in Peiping." **11** (2), 151-155.
d. WINFIELD, G. F. & CHANG, C. F., 1936.—" *Raillietina* (*Raillietina*) *shantungensis* a new name for *Raillietina* (*Raillietina*) *sinensis* Winfield & Chang, 1936." **11** (2), p. 161.

(588a) Tang, in a survey of 120 domestic cats in Foochow, gives the percentage incidence and a short description of the 4 species of trematodes, 8 cestodes and 6 nematodes found ; these include *Diplopylidium nölleri*, the first report of this species from the cat in China. The 30 species of helminths already recorded as occurring in Chinese cats, with their locality, are tabulated. J.W.G.L.

(588b) Winfield & Chang describe *Raillietina* (*Raillietina*) *sinensis* n. sp. from the domestic fowl in Tsinan. This species can be distinguished by the size and number of the testes, the size of the ovary and the number of eggs in the uterine capsule. It is most closely related to *R.* (*R.*) *multicapsulata*. P.A.C.

(588c) Ting records the degree of infestation of the poultry in Peiping with Ascaridia, Heterakis, cestodes and Harmostomum. Ascaridia is most abundant in September and October, probably owing to the fact that chickens are for the most part hatched in the spring and do not acquire a resistance till later in the year. Cestodes are abundant from June to August, though there is not much variation throughout the year. P.A.C.

(588d) *Raillietina* (*Raillietina*) *shantungensis* nom. nov. is given to *R.* (*R.*) *sinensis* described from the domestic fowl, this name being preoccupied for a parasite of *Mus* sp. P.A.C.

589—Philippine Journal of Animal Industry.

a. SEVILLA, N. S., 1936.—" Severe ascariasis in calves." **3** (2), 137-138.
b. JESUS, Z. DE, 1936.—" Practical methods of control and eradication of kidney-worm disease of swine." **3** (4), 295-305.
c. FARINAS, E. C., 1936.—" Some of the most important diseases affecting our hog industry." **3** (4), 327-337.

(589a) Sevilla records heavy infections of *Ascaris vitulorum* as the cause of death of 11 calves, 2 to 4 weeks old. The only lesions were a distended urinary bladder and the duodenum tightly packed with *Ascaris*. Treatment recommended was 15 c.c. oil of turpentine in 60 c.c. linseed oil after fasting 24 hours. J.W.G.L.

(589b) Experiments carried out in concrete floored sties with pregnant sows naturally infected with *Stephanurus dentatus* show that the young pigs can be raised free from kidney worm infections solely by hygienic measures such as : (i) Disinfection of the sty every third day with 4% solution of common salt on dry days or 2% creolin on rainy days, or (ii) in a sty exposed to sunlight from 6.30 to 9 a.m., thorough cleansing of the floor of the sty and of the sow with water every morning. J.W.G.L.

(589c) The only helminth dealt with in this paper by Farinas is *Cysticercus cellulosae*, a parasite of great economic importance to the Philippine Islands. Tables show the percentage of hogs condemned because of this disease in the Manila abattoir during the years 1926 to 1935, and also the percentage in various provinces during 1935. J.W.G.L.

590—Philippine Journal of Public Health.

a. AFRICA, C. M., LEON, W. DE & GARCIA, E. Y., 1936.—" Somatic heterophyidiasis in fish-eating birds. I. Ova associated with chronic lesions in the pancreas of a sea gull (*Larus ridibundus* Linn.)." **3** (1/2), 29-35.

(590a) In four sea-gulls, eggs of *Stictodora* have been found in huge well-circumscribed masses in the substance of the pancreas. Adults of *Stictodora manilensis* and an unidentified species of the same genus occurred in the intestines. The eggs were enclosed in proliferated reactive cells of reticulo-endothelial origin in a groundwork of fibrous tissue cells. R.T.L.

591—Philippine Journal of Science.

a. TUBANGUI, M. A. & MASILUÑGAN, V. A., 1936.—" Studies on the cercaricidal property of the sera of vertebrate animals." **60** (4), 393-398.

b. TUBANGUI, M. A. & MASILUÑGAN, V. A., 1936.—*Oöchoristica excelsa*, a new reptilian cestode." **61** (1), 75-78.

c. AFRICA, C. M., REFUERZO, P. G. & GARCIA, E. Y., 1936.—" Further observations on the life cycle of *Gnathostoma spinigerum*." **61** (2), 221-225.

d. AFRICA, C. M., LEON, W. DE & GARCIA, E. Y., 1936.—" Somatic heterophyidiasis in fish-eating birds. II. Presence of adults and eggs in the bile ducts of the cattle egret." **61** (2), 227-232.

(591a) Tubangui & Masiluñgan have investigated the action of various vertebrate sera as cercaricides against *Schistosoma japonicum* and *Cercaria maitimensis*. The sera of the cat and rabbit had no lethal action, due probably to a deficiency of amboceptor and complement. All the sera were only partially active against *C. maitimensis* but there was a definite reaction against the schistosome cercariae. Sera from vertebrates known to be possible definitive hosts had a low titre while sera from other vertebrates, i.e., mainly cold blooded, were much higher. Cercaricidal action is probably due to the reaction of antigen with antibody, with the absorption of complement. A guinea-pig serum, from an animal infected with *S. japonicum*, had a very high titre, probably due to a great increase in amboceptor content. P.A.C.

(591b) Tubangui & Masiluñgan describe *Oöchoristica excelsa* n. sp. from two specimens found in the intestine of the grass lizard *Mabuia multifasciata* in Luzon. The new species differs from its nearest congeners, *O. surinamensis*, *O. fibrata*, and *O. americana*, in its smaller size, fewer testes, and the oval shape of the ovarian lobes. B.G.P.

(591c) Encysted larvae of *Gnathostoma spinigerum* obtained from a naturally infected specimen of the freshwater fish *Glossogobius giurus* developed into adults when fed to cats. It is suggested that snakes are " unsuitable " intermediate hosts in that they only permit of a development short of the infective stage. R.T.L.

(591d) In cattle egrets in the Philippines there is extensive invasion of the liver through the bile ducts by adult *Monorchotrema taihokui* and *M. taichui*. Fibrotic capsules with leucocytic infiltrations surround the parasites. R.T.L.

592—Plant Disease Reporter.

a. HASTINGS, R. J. & BOSHER, J. E., 1936.—" Detection of *Anguillulina dipsaci* in bulbous iris." **20** (19), 300-301.
b. ANON, 1936.—" Wheat nematode in Virginia and other southern states." **20** (19), p. 305.
c. BOYD, O. C., 1936.—" Strawberry dwarf in Massachusetts." **20** (20), p. 324.
d. PIRONE, P. P., 1936.—" Diseases of herbaceous ornamentals in New York in 1936." **20** (20), 324-326.

(592a) Hastings & Bosher state that yellow or grey streaks arising from the basal plate of iris bulbs are common and specific symptoms of attack by *Anguillulina dipsaci*. Such streaks may be seen on turning back the outer fibrous tunic from the base of the bulb. The tunic itself may also become infected and manifest dark stains. The stem of the plant is often attacked, especially that portion of it attached to the basal plate and reveals yellow, grey or black streaks. The latter spread into the basal plate and into the new bulbs attached to it. T.G.

(592b) This report of observations made by Leukel shows that the wheat gall nematode, *Anguillulina tritici*, is still prevalent in various counties in Virginia, North Carolina and Georgia. The presence of galls in screenings at a number of mills shows that the disease is widespread, but is not severe. In one instance, however, severe loss was noted as 50% of the grain from a particular crop consisted of galls. T.G.

(592c) Boyd reports on examinations of strawberry plants carried out in the autumn in order to determine the condition of plants suspected of ' dwarf ' symptoms at this time of the year. Where strawberry beds the preceding spring had shown many plants with distinct ' dwarf ' symptoms and an abundance of *Aphelenchoides fragariae*, it was possible to find only an occasional plant showing ' dwarf ' symptoms in the autumn and on such plants the parasites were not found. T.G.

(592d) Pirone lists diseases (mainly fungal) attacking herbaceous plants and includes attack by the root-knot eelworm, *Heterodera marioni*, on the following : *Aconitum* sp., *Anemone sylvestris* and *Delphinium* sp. T.G.

593—Pratica Pediatrica.

*a. CHIANESE, R., 1936.—" Un caso di tenia in una lattante di dieci mesi." **14**, 322-324.

594—Presse Médicale.

a. LAPEYRE, J. L., 1936.—" Un ascaris adulte dans un appendice." **44** (91), p. 1787.
b. GARIN, C., 1936.—" L'ankylostomose des mineurs." **44** (97), 1955-1957.
c. SERGENT, E., FOURESTIER, FRANCHEL & DUPERRAT, 1936.—" Échinococcose pulmonaire multiple." **44** (104), 2111-2112.

* Original not available for checking or abstracting.

d. NGUYEN-DINH-HOANG, 1936.—" A propos du signe du 'décollement' pathognomonique du kyste hydatique du poumon." **44** (105), 2117-2118.

(594d) In the radiological diagnosis of pulmonary hydatid, Nguyen-Dinh-Hoang regards as an important sign the separation of layers which is often visible as a crescentic space in a skiagram and which probably occurs between the cuticular layer and the adventitious host-capsule. B.G.P.

595—Proceedings of the Imperial Academy (of Japan).

a. MORIYA, C., 1936.—" Notes on the germicidal properties of the soil nema, *Rhabditis pellio* Schneider." **12** (7), 195-197.

(595a) With a view to determining the bactericidal properties of soil nematodes Moriya has carried out experiments with *Rhabditis pellio*. Twenty pairs of this nematode were kept at 25°C. on agar-agar plates with certain numbers of the following bacteria: *Sarcina flava*, acid-fast bacillus, *Staphylococcus pyogenes aureus*, *Bacillus anthracis*, *B. dysenteriae*, *B. typhosus*, *B. paratyphosus* A and B, *Vibrio cholerae* and *Bacteria coli communis*. The numbers of worms and bacteria were counted on the 2nd, 4th, 6th, 9th and 14th days. The results appear in a table which shows that *R. pellio* has a definite bactericidal property, the numbers of bacteria diminishing greatly while the nematodes multiply rapidly. A.E.F.

596—Proceedings of the Royal Physical Society of Edinburgh.

a. FLEMING, K. M. G., 1936.—" Turbellaria and Nematomorpha." In: " The natural history of Barra, Outer Hebrides. The results of a scientific expedition organised by the Biological Society of the University of Edinburgh, 1st to 14th July, 1935." Edited by J. E. Forrest, A. R. Waterston & E. V. Watson. **22** (5), 264-265.

(596a) Two specimens of *Gordius violaceus*, which had not been recorded previously from the Outer Hebrides, were the only Nematomorpha collected by a scientific expedition to the island of Barra. J.N.O.

597—Proceedings of the Society for Experimental Biology and Medicine.

a. HUFF, G. C. & BOELL, E. J., 1936.—" Effect of ultracentrifuging on oxygen consumption of the eggs of *Ascaris suum*, Goeze." **34** (5), 626-628.

(597a) Huff & Boell have determined the respiratory rate of eggs of *Ascaris suum* after centrifuging for 30 minutes at a force of 150,000 times gravity. They found that the oxygen uptake was much less than that of normal eggs, but the results indicated a partial recovery after 2 hours and complete recovery after 24 hours. A solution of 10^{-3}M. KCN markedly depressed the respiration of normal eggs, maximal inhibition being obtained within 2 hours. Previous centrifuging of the eggs had no effect on the action of KCN. The cleavage rate in centrifuged eggs was not noticeably different from that in normal eggs. R.H.H.

598—Proceedings of the Zoological Society of London.

a. REES, W. J., 1936.—" The effect of parasitism by larval trematodes on the tissues of *Littorina littorea* (Linné)." Year 1936, pp. 357-368.

599—Profilassi.

a. VALCARENGHI, E., 1936.—"Sul valore della formologelificazione nella diagnosi della filariosi canina." 9 (2), 59-64.

(599a) Valcarenghi reports the presence of several foci of filariasis in dogs in Lombardy. He has studied the Gaté-Papacostas, i.e., formol gelification reaction with a view to its possible value in diagnosis but finds it is not sufficiently specific to be of use. P.A.C.

600—Progrès Médical.

a. SCRIABINE, K. S., 1936.—"L'organisation de la lutte contre les maladies vermineuses parmi la population de l'U.R.S.S." 63 (37), 1417-1420.

601—Przegląd Weterynaryjny.

a. SOŁTYS, M., 1936.—"Przyczynek do rozpoznawania wągrzycy mięsa świń zapomocą odczynu strącania (precipitacji)." 49 (7), 393-410. [German summary p. 410.]

(601a) Using extract of flesh of pigs infested with cysticercus, Sołtys finds the precipitin reaction is useful for diagnosis. The infected pigs all gave a positive reaction while the controls were all negative. P.A.C.

602—Publications. Faculty of Medicine, Egyptian University.

*a. HILMY, I. S., 1936.—"Parasites from Liberia and French Guinea. Part III. Cestodes from Liberia." No. 9, 72 pp.

603—Radiology.

a. SINBERG, S. E., 1936.—"Echinococcus cyst of the sternum." 27 (6), 736-740.

604—Rassegna Internazionale di Clinica e Terapia.

a. FINZI, O., 1936.—"Sul trattamento chirurgico delle cisti di echinococco aperte nelle vie biliari." 17 (11), 494-500.
b. MELINA, F., 1936.—"Sulle cisti idatidee multiple del polmone e loro trattamento." 17 (19), 870-878.

605—Rassegna Italiana d'Ottalmologia.

a. GALLO-BASTERIS, A., 1936.—"Sulla filariasi dell'apparato oculare." 5, 584-603.

(605a) Gallo-Basteris describes a case of *Loa loa* infection in which the worms repeatedly appeared under the conjunctiva or in the eyelid. Photographs show worms in both locations. He gives references to 52 other ocular loaiasis cases B.G.P.

606—Records of the Indian Museum.

a. DATTA, M. N., 1936.—"Scientific results of the Yale North India Expedition. Biological Report No. 20. Helminth parasites of fishes from North India, with special reference to acanthocephalans." 38 (2), 211-229.

* Original not available for checking or abstracting.

b. SUBRAHMANIAN, K., 1936.—" Studies on the acanthocephalan fauna of Burma." **38** (3), 311-315.
c. AKHTAR, S. A., 1936.—" Notes on helminth parasites from Afghanistan." **38** (3), 373-375.

(606a) Datta describes *Acanthocephalus kashmirensis* n. sp., *Neoechinorhynchus rutili* (Müller), *N. hutchinsoni* n. sp., *Eosentis devdevi* n. sp., *E. yalei* n. sp. and the larval form of the cestode *Ligula intestinalis*. The genera *Acanthocephalus* and *Neoechinorhynchus* are reported for the first time from India. E.M.S.

(606b) Subrahmanian describes specimens of *Pallisentis nagpurensis* Bhalerao collected from food fish in Lower Burma. He compares the genera *Pallisentis* and *Neosentis* and concludes that they are synonymous. E.M.S.

(606c) Akhtar gives a short list of helminths found by him parasitizing sheep, fowl and coot in Afghanistan. *Echinuria uncinata* found in a species of wild duck (*Anas* sp.) is described and some differences from the published description mentioned. Eggs taken from a living female were found to hatch out in distilled water within 15 minutes at 25° C. After preserving for one year in weak formalin the eggs hatched in precisely the same way as those from the fresh specimen. J.W.G.L.

607—Revista de la Academia de Ciencias Exactas, Fisicas y Naturales de Madrid.

a. LÓPEZ-NEYRA, C. R., 1936.—" ' *Fernandezia goizuetai* nov. gen. nov. sp.' parásito intestinal del zorzal y revisión de los ' Ophryocotylinae '." **33** (1), 5-18.

(607a) López-Neyra creates a new genus of the Ophryocotylinae, *Fernandezia* n. g., with unarmed suckers and irregularly alternating genital pores. There are two species, *F. spinosissima*, syn. *Davainea spinosissima* v. Linstow, 1893, from *Turdus* sp., and *F. goizuetai* n. sp. from *Turdus musicus*. E.M.S.

608—Revista de la Asociación Médica Argentina.

a. CAMPONOVO, L. E., 1936.—" Las piretrinas como tratamiento de las parasitosis intestinales." **50** (356), 387-390.
b. LAMBRÉ, P., 1936.—" Sobre un caso de cisticercosis en el hombre diagnosticado por los rayos X." **50** (361), 1304-1320.
c. CIFONE, A. & SALGADO RUEDA, A., 1936.—" Quiste hidático de diafragma." **50** (362), 1531-1539.
d. ROSSI, R. & LOZANO, F. S., 1936.—" A propósito de un probable pioneumoquiste de hígado. Curado por tratamiento." **50** (363), 1808-1818.
e. RIVAS DIEZ, B. & TREBINO FERRARI, O., 1936.—" Quiste hidático gigante del pulmón." **50** (364), 1983-1989.

609—Revista de Cirugía de Barcelona.

*a. PRIM, J., 1936.—" Consideraciones sobre el diagnóstico y tratamiento de los quistes hidatídicos del pulmón. (Estadística de 35 casos)." **11**, 228-260.

* Original not available for checking or abstracting.

610—Revista do Departamento Nacional da Producção Animal.

a. FREITAS, J. F. TEIXEIRA DE & ALMEIDA, J. LINS DE, 1936.—" Notas sobre ' Strongyloides ' das aves domesticas." **3**, 1-15.

(610a) Freitas & Almeida give an illustrated description of *Strongyloides oswaldoi* from the domestic fowl, including all stages in the life-cycle except the filariform larvae which have not been observed. The principal measurements of the various stages are set out in a table together with those of *S. avium*. Gentian violet has given promising results against *S. oswaldoi*.

B.G.P.

611—Revista Española de las Enfermedades del Aparato Digestivo y de la Nutrición.

*a. GUTIÉRREZ ARRESE & MÁRQUEZ DEL PRADO, E., 1936.—" Frecuencia y poder patógeno de los metazoos parásitos del intestino humano." **2**, 163-170.

612—Revista de Higiene y Sanidad Pecuarias.

a. SÁNCHEZ, E. L., 1936.—" Contribución al estudio de la bronquitis verminosa del cerdo." **26** (1/2), 8-12.

(612a) Sánchez briefly discusses the symptomatology and pathology of metastrongylosis in pigs. He regards the action of the parasite as purely mechanical, and the disease as important only in young pigs. B.G.P.

613—Revista del Instituto Bacteriológico del Departamento Nacional de Higiene. Buenos Aires.

a. FITTE, O. A., 1936 —" Un caso autóctono de *Taenia solium* observado en Jujuy." **7** (3), 382-385.

614—Revista Médica de Barcelona.

a. DURÁN JORDÁ, F., 1936.—" Contribución al estudio del parasitismo intestinal." **25** (150), 483-504.

615—Revista Médica de Chile.

*a. BRINCK, G. & BECA, F., 1936.—" Contribución al estudio de la cisticercosis cerebral." **64**, 348-392.

616—Revista Médica Cubana.

*a. CALVÓ FONSECA, R., KOURÍ, P. & BASNUEVO, J. G., 1936.—" Porcentaje y distribución geográfica del parasitismo intestinal en Cuba. Provincia : La Habana. Pueblo : Melena del Sur." **47**, 157-163.

*b. GARCÍA RIVERA, A., 1936.—" Consideraciones sobre los remedios antihelmínticos." **47**, 348-354.

*c. GARCÍA RIVERA, A., 1936.—" Patogenia y sintomatología de la ascaridosis." **47**, 566-595.

* Original not available for checking or abstracting.

617—Revista Medica de Pernambuco.

*a. PESSÔA, S. B., 1936.—" Problemas relativos á terapeutica da ancilostomose." **6**, 155-171.

618—Revista Médica del Rosario.

*a. STAFFIERI, D., BORZONE, J. & RODRÍGUEZ CEBRIAN, M., 1936.—" Ankylostomiasis autóctona." **26**, 408-417.

619—Revista Médica Veracruzana.

*a. SEGOVIA, A., 1936.—" Causas que retardan la desparasitación en los uncináricos." **16**, 1836-1842.

*b. SEGOVIA, A., 1936.—" Algunas consideraciones sobre los antihelmínticos usados contra las parasitosis intestinales más comunes." **16**, 2006-2013.

*c. GARCÍA DE LEÓN, V., 1936.—" Ascaridosis. Tricocefalosis. Enterobiosis." **16**, 2037-2055.

620—Revista de Medicina y Cirugía de la Habana.

*a. PICAZA, S., 1936.—" La simbiosis malaria-anquilostomiasis." **41**, 310-314.

*b. CALVÓ FONSECA, R., KOURÍ, P. & BASNUEVO, J. G., 1936.—" Porcentaje y distribución geográfica del parasitismo intestinal en Cuba; Provincia de Matanzas. Pueblo: Guamacaro." **41**, 315-320.

*c. PÉREZ ARA, A. & PÉREZ VIGUERAS, I., 1936.—" Sobre un nuevo nematodo encontrado en el párpado del hombre." **41**, 572-577.

621—Revista de Neurologia e Psychiatria de São Paulo.

*a. LANGE, O., 1936.—" O liquido cephalo-rachidiano na cysticercose do systema nervoso central." **2**, 52-60.

622—Revista Oto-Neuro-Oftalmológica y de Cirugía Neurológica Sud-Americana.

a. BELFORT MATTOS, W., 1936.—" Lesões intraoculares da cisticercose subretiniana." **11** (9), 235-243.

623—Revista de Parasitologia, Clínica y Laboratorio.

a. BOLAÑOS, J. M., KOURÍ, P. & ANIDO, V., 1936.—" El parasitismo intestinal en los indigentes del campamento de Tiscornia." **2** (4), 601-609.

b. FERMOSELLE BACARDÍ, J. & PORTUONDO DEL PINO, A., 1936.—" *Hymenolepis diminuta*: caso humano." **2** (4), 629-633.

c. SALA PANISELLO, F., JIMÉNEZ, J. A. & GUERNICA, A., 1936.—" Intususcepción íleo-cecal-cólica con peritonitis por ascaridiasis y tricocefalosis." **2** (5), 693-703.

d. CALVÓ FONSECA, R., KOURÍ, P. & BASNUEVO, J. G., 1936.—"Porcentaje y distribución geográfica del parasitismo intestinal en Cuba. Provincia: Matanzas. Pueblo: Manguito." **2** (5), 719-724.

e. HERNÁNDEZ, A., 1936.—" Décimo sexto caso cubano de fasciolosis hepática humana." **2** (6), 753-760.

* Original not available for checking or abstracting.

624—Revista de Patologia Infecciosa.

*a. PEDACE, E. A., 1936.—" Disentería por tricocephalos." **1**, 624-638.

625—Revista de la Policlinica Caracas.

*a. VOGELSANG, E. G., 1936.—" Contribución al estudio de la parasitología animal en Venezuela." **6** (31), 2122-2124.

626—Revista de la Sociedad Argentina de Biología.

a. BACIGALUPO, J. & FITTE, O. M., 1936.—" Por ciento del parasitismo por cercocistis *Hymenolepis diminuta*, en pulgas recogidas sobre ratas del Norte Argentino." **12** (8), 408-417.

627—Revistă Ştiinţelor Medicale.

*a. IAMANDI, G. G., IAMANDI, T. G. & BIENSTOCK, O., 1936.—[Study of human intestinal parasites in Rumania.] **25**, 948-955.

628—Revista Sud-Americana de Endocrinología, Immunología y Quimioterapía.

a. BOGETTI, H., 1936.—" Hidatidoperitoneo y coleperitoneo hidático." **19** (6), 383-417; (7), 453-495.

629—Revue Française de Pédiatrie.

a. KATZMANN, E. E., 1936.—" Contribution à l'étude de l'invasion helminthique chez les enfants et de quelques symptômes cliniques." **12** (1), 75-86.

630—Revue Générale de Clinique et de Thérapeutique. Journal des Praticiens.

a. CHALLAMEL, A. & CHANTRIOT, P., 1936.—" Nématodes parasites. Essai d'une nouvelle thérapeutique." **50** (34), 547-551.

(630a) Challamel & Chantriot report upon the efficacy of Aethone as an anthelmintic in human infestations with oxyurids, ascarids and trichocephalids. Their observations on the use of the drug cover three years, and 9 illustrative cases are cited. J.N.O.

631—Revue du Service de Santé Militaire.

a. BLANCARDI, C. F. E. A., 1936.—" A propos d'un nouveau foyer de bilharziose vésicale marocaine." **105** (4), 547-559.

632—Revue de la Tuberculose.

a. LÉON-KINDBERG, M. & BRUMPT, L., 1936.—" Kyste hydatique du poumon. Diagnostic radiologique." 5e Série, **2** (4), 449-456.

633—Revue Vétérinaire et Journal de Médecine Vétérinaire et de Zootechnie.

a. VAILLS, L., 1936.—" Filariose et microfilariose autochtones chez le chien. Formes cliniques. Considérations." **88**, 133-141.

* Original not available for checking or abstracting.

b. CUILLÉ, J. & DARRASPEN, E., 1936.—" Contribution à l'étude clinique de la strongylose cardio-pulmonaire du chien. Manifestation nerveuses." 88, 249-255.

c. GRANOUILLIT, F., 1936.—" Contribution à la biologie de *Cysticercus tenuicollis* (Rudolphi) des foies porcins en Cochinchine." 88, 516-518.

d. GRANOUILLIT, F. & DO-VAN-VIEN, 1936.—" Contribution à l'étude de *Dirofilaria immitis* et de sa microfilaire. La microfilariose du chien en Cochinchine." 88, 617-630.

(633b) Cuillé & Darraspen describe fully the clinical symptoms of cardio-pulmonary strongylosis in the dog, which is of common occurrence in all parts of south west France. Positive diagnosis may be carried out from the symptoms exhibited during violent exercise or by microscopic examination of the faeces and sputum for the presence of embryos of the causative organism, *Strongylus vasorum*. Nervous and other manifestations of this disease result from dilatation of the heart. Nervous and heart symptoms in the dog should always suggest strongylosis as a probable cause. J.W.G.L.

(633c) Granouillit finds that in Cochin-China *Cysticercus tenuicollis* in the liver of pigs takes on two different appearances, according as to whether the cyst is situated at the surface of the liver or within the substance. A host reaction occurs in each case, surrounding the surface forms with a thin cyst and the deep forms with a thick one. Strong contractions with evagination can be induced in these cysts by means of warm water or saline or by an electrical current. The larvae are capable of living *in vitro* for several hours at blood temperature. P.A.C.

(633d) Granouillit & Do-Van-Vien, studying *Dirofilaria immitis* in dogs, find that roughly one quarter of the stray dogs of Cochin-China are infected. Blood examination showed that there was no periodicity in the appearance of microfilariae in the blood. Clinical symptoms were not always exhibited : they included anaemia, cardiac failure, ascites and death. At autopsy adult filarias were commonly found in the right ventricle and the right auricle, and rarely in the pulmonary artery ; *D. repens* was found in subcutaneous tissue. Treatment with novarsenobenzol, tartar emetic, Naganol and Quinoform was found to be of no value to infected dogs in Cochin-China.

J.W.G.L.

634—Revue Vétérinaire Militaire.

a. GARRIGUES, 1936.—" Sur quelques cas d'ophtalmie vermineuse du cheval, au Tonkin." 20 (4), 413-422.

(634a) Garrigues states that verminous ophthalmia in the horse, due to *Setaria equina*, is common in Indo-China. He describes symptoms in detail and regards prognosis as always grave. Surgical treatment involving the puncture of the cornea to allow the escape of the parasite is described and the results obtained in 4 cases recorded. J.W.G.L.

635—Revue de Zoologie et de Botanique Africaines.

a. SANDGROUND, J. H., 1936.—" *Pseudofilaria*, a new name for *Protofilaria* Sandground, 1935 (Nematoda, Filariidae)." 28 (2), p. 164.

b. BAER, J. G., 1936.—" Un trématode parasite de l'okapi (*Cotylophoron congolense* n. sp.)." 28 (2), 310-316.

c. VUYLSTEKE, C., 1936.—" Un nématode nouveau du pangolin d'Afrique." 29 (1), 13-16.

(635b) *Cotylophoron congolense* n. sp. is described from the okapi and is differentiated from *C. okapi* Leiper by the smaller size of the testes and the fact that Laurer's canal does not cross the excretory canal. As these two characters are very variable in amphistomes, Baer admits that *C. congolense* may prove to be a synonym of *C. okapi*. R.T.L.

(635c) Vuylsteke describes and figures *Habronema manidis* n. sp., from the African pangolin *Manis gigantea*. Although the new species shows certain affinities with *Physaloptera*, the presence of pharynx, dorsal and ventral lips, and the caudal structure in the male point to *Habronema*. A table is appended comparing male and female measurements. A.E.F.

636—Riforma Medica.

a. FOGLIANI, U., 1936.—" Ascesso pararenale da ascaridi." **52** (32), 1092-1097.

637—Rivista di Patologia Nervosa e Mentale.

a. RIZZO, C., 1936.—" Alcuni dati anatomo-patologici sull'echinococco del cervello. (Nota preventiva)." **47** (3), 582-600.

638—Rivista Sanitaria Siciliana.

a. FERRO, M., 1936.—" Colecistite e cisti da echinococco." **24** (2), 74-79.
b. MUSUMECI, P., 1936.—" Le colecistiti parassitarie." **24** (10), 524-534.

639—Roczniki Prac Naukowych Zrzeszenia Asystentów Uniwersytetu Józefa Pilsudskiego w Warszawie.

a. EJSMONT, L., 1936.—" Dépendance causale entre la localisation du strongle géant (*Dioctophyme renale*) et les voies évolutives dans l'hôte définitif." **1** (2), 473-485.

(639a) Ejsmont discusses the usual location of *Dioctophyme renale*, in the right kidney, in relation to the opinions of other authors. Since in the dog the right kidney lies partly within a depression in the surface of the liver, he assumes that larvae pass via the blood stream to the liver and thence (whilst still very small) directly into the right kidney. Cases where adult worms have been found in the abdominal cavity, occasionally attempting to perforate the kidney from the outside, represent worms that have strayed in their development. The normal location is within the pelvis, which expands with the growth of the worm at the expense of the parenchyma. B.G.P.

640—St. Bartholomew's Hospital Journal.

a. HOWELL, C. A. H., 1936.—" A case of cysticercosis." **43** (6), 110-111.

641—Scalpel.

a. WELSCH, M. & SNYERS, J., 1936.—" Considérations générales sur l'oncho-cercose à propos d'un nouveau cas observé chez un Européen." **89** (37), 2061-2088.

(641a) Describing a case of onchocerciasis in a European who contracted it in the Belgian Congo, Welsch & Snyers take the opportunity of giving a compact resumé of the literature on this disease and its parasite, based on a bibliography of 141 references. Incidentally, they suggest that sun-bathing (i.e., "Extra-medical heliotherapy") might predispose to the infection in Europe, on the assumption that local species of *Simulium* can act as efficient carriers. B.G.P.

642—Schweizerische Medizinische Wochenschrift.

a. GALLI-VALERIO, B., 1936.—"Nouvelles observations sur les méningo-encéphalomyélites déterminées par des parasites-animaux." **66** (35), 836-837.

643—Science Bulletin. Lingnan University.

*a. CHAN, F. L., 1936.—"A study on the loss of nitrogen in connection with the use of chemicals for the killing of hookworm eggs in nightsoil." No. 8, v + 42 pp.

644—Science Reports of the Tôhoku Imperial University. 4th Series. Biology.

a. TORYU, Y., 1936.—"Contributions to the physiology of the Ascaris. IV. Products from glycogen during anaerobic and aerobic existence of the Ascaris, *Ascaris megalocephala* Cloq." **10** (4), 687-696.

b. TORYU, Y., 1936.—"Contributions to the physiology of the Ascaris. V. Survival and respiratory exchange of the Ascaris, *Ascaris megalocephala* Cloq. intercepted from light in presence and absence of oxygen." **11** (1), 1-17.

(644a) Toryu has carried out experiments on the metabolism *in vitro* of *Ascaris megalocephala*. Glycogen was converted into valeric and lactic acids, together with a small amount of propionic acid. The production of lactic acid ceased after 24 hours, whereas valeric acid was produced throughout the existence of the worm. The amounts of these acids produced were approximately the same under aerobic and anaerobic conditions. R.H.H.

(644b) Toryu has investigated the effect of the presence or absence of light on the time of survival and the respiration of *Ascaris megalocephala*. The time of survival was the same in light or dark when the worms were placed in solutions saturated with oxygen or with carbon dioxide. In solutions saturated with nitrogen the worms lived for 40 to 50 hours in the absence of light, but only for 20 to 30 hours in its presence. Under anaerobic conditions the amount of carbon dioxide produced was considerably increased when light was excluded. R.H.H.

645—Scientific Memoirs of the M. Gorky State University of Perm.

a. SACHWATKIN, V. A., 1936.—"Zur Fauna parasitischer Würmer der sibirischen Fische." **2** (1), 65-84. [In Russian: German summary pp. 83-84.]

* Original not available for checking or abstracting.

(645a) Sachwatkin reports 8 species of cestodes, 4 of which are plerocercoids, 3 species of nematodes and 3 species of Acanthocephala from 12 species of fresh-water fish from Siberia. The collection was primarily an ichthyological one, and small forms could not be recovered from the preserved host-material. B.G.P.

646—Semana Médica.

a. FAUST, E. C. & KING, E. L., 1936.—" Enfermedades parasitarias que complican el embarazo." **43** (22), 1710-1716.
b. MAZZINI, O. F., 1936.—" Cierre sin drenaje en los quistes hidáticos del abdomen con calcificación de la periquística." **43** (24), 1835-1838.
c. PASTORIZA, J. M. & VALLARINO, D., 1936.—" Seudolitiasis por quiste hidático de cara inferior de hígado." **43** (29), 194-197.
d. PARODI, S. E., LIMA, E. J. & ESCUDERO, J. C. 1936.—" Un foco de anquilostomiasis en el distrito de esta Capital." **43** (31), 321-324.
e. FERDMAN, J. & NATIELLO, N., 1936.—" Quiste hidático intraperitoneal." **43** (45), 1310-1311.
f. GIORDANO, F. P. & NICASTRO, M., 1936.—" Apendicitis y tenia." **43** (52), 1808-1809.
g. RISOLÍA, A. J. & GRAVANO, L., 1936.—" La ascitis mecánica, la hiperplasia compensadora y la cirrosis, en la hidatidosis hepática." **43** (53), 1840-1845.

647—Sinensia. Contributions from the Metropolitan Museum of Natural History, Nanking.

*a. CHIN, T. H., 1936.—" A preliminary survey of gastrointestinal nematodes of Tsinan goats with a checklist of the nematodes reported from sheep and goats." **7** (5), 601-618.

648—Skandinavisk Veterinär-Tidskrift.

a. HERMANSSON, K. A., 1936.—" Bidrag till Kännedomen om dynthuvudet till *Taenia echinococcus*." **26** (2), 62-67. [English summary p. 67.]

(648a) Hydatids are met with at meat inspection fairly frequently in Sweden. Hermansson describes them, with several microphotographs of scolices. B.G.P.

649—Smithsonian Miscellaneous Collections.

a. BARTSCH, P., 1936.—" Molluscan intermediate hosts of the Asiatic blood-fluke, *Schistosoma japonicum*, and species confused with them." **95** (5), 1-60.

(649a) Bartsch gives a systematic review of the zoological position of the molluscan intermediaries of *Schistosoma japonicum* and differentiates the genus *Katayama* from *Blandfordia*, which is not a bilharzia vector. R.T.L.

650—Sovetskaya Khirurgiya.

*a. ZOLOTAREV, A. S., 1936.—[Echinococcosis of spleen.] No. 3, 447-453.
*b. PANIKOV, P. A., 1936.—[Entry of echinococcus through wound surface]. No. 3, 454-456.
*c. ZIKEEV, V. V., 1936.—[Case of echinococcosis of vertebra.] No. 3, 532-533.

* Original not available for checking or abstracting.

*d. PEPLOVSKIY, I. I., 1936.—[Intestinal obstruction due to ascariasis.] No. 4, 634-635.
*e. VALTER, T. K., 1936.—[Intestinal obstruction due to ascariasis.] No. 5, 857-859.
*f. SOYNOVA, T. A., 1936.—[Resection of liver in echinococcosis.] No. 8, 259-265.
*g. SOSNOVSKIY, A. G., 1936.—[Echinococcosis of biliary tract.] No. 12, 969-975.

651—Sovetskaya Psikhonevrologiya.

*a. SHTERN, I. B. & BASKINA, N. A., 1936.—[Multiple cysticercosis of brain.] No. 3, 26-35.

652—Sovetskiy Vestnik Oftalmologii.

*a. ABDULAEV, G. G., 1936.—[Ocular helminthiasis.] 8, 716-719.
*b. ROZENTSVEYG, M. G., 1936.—[Case of *Filaria scrabina* in internal angle of left upper lid.] 9, 73-74.
*c. GULYAKOV, M. F., 1936.—[Case of cysticercosis of anterior chamber of eye.] 9, 512-516.

653—Sovetskiy Vrachebniy Zhurnal.

*a. ZAYTSEVA, A. S., 1936.—[Clinical aspects of pernicious anemia caused by intestinal parasites.] 1936, pp. 367-370.
*b. TARASOV, V., 1936.—[Treatment of oxyuriasis.] 1936, pp. 752-756.
*c. KUCHER, L. S., 1936.—[Helminthiasis in childhood.] 1936, pp. 1395-1402.
*d. BERMAN, E. I., 1936.—[Modern status of therapy of helminthiasis in children.] 1936, pp. 1403-1408.
*e. KOGAN, D. A., 1936.—[Causes of complications and failures in treatment of tapeworm infestation.] 1936, pp. 1432-1434.
*f. MARKARYAN, P. A., 1936.—[Case of primary echinococcosis of cervix uteri.] 1936, pp. 1821-1822.

654—Spitalul.

*a. TOVARU, S., GEROTA, D. & JUVARA, I., 1936.—[Acute intestinal occlusion due to Ascaris.] 56, 165-168.
*b. IONESCU, G. & IONESCU, V., 1936.—[Pulmonary echinococcosis.] 56, p. 258; p. 301.

655—Summary of the Scientific Research Work of the Institute of Plant Protection, Leningrad.

a. KIRJANOVA, E. & GURVITSH, G., 1936.—" The fauna of nematodes of Orenburg's steppe, near the village Saverovka, with prognostics of its potential influence on the yield in the case of cultivation." Year 1935, 85-88. [In Russian.]

(655a) Kirjanova & Gurvitsh have determined the nematode fauna present in soil of the Orenburg steppe. Samples were taken at 10 cm. intervals down to 100 cm. in virgin soil, old fallow and in a wheat field. In all cases the nematodes are most numerous in the top layer but they extend down to 100 cm. in diminishing numbers. In virgin soil the predominant

* Original not available for checking or abstracting.

forms of the upper zone are *Anguillulina multicincta* and *Acrobeles ciliatus*. In the deeper regions of this soil *Longidorus elongatus* is the most abundant form. *Anguillulina dipsaci* was found as a pest of a number of unnamed perennial plants on the virgin soil, but neither *Heterodera schachtii* nor *H. marioni* was found on any plant or in any soil sample. T.G.

656—Technische Assistentin.

a. WETZEL, R., 1936.—" Zur Biologie der Spulwürmer (Askariden)." **3**, 290-293.

(656a) Wetzel considers the structure, life history, epidemiology and diagnosis of *Ascaris lumbricoides* and makes some remarks on the effect of infection on the host. P.A.C.

657—Terapevticheskiy Arkhiv.

a. SMORODINTZEV, I., 1936.—" De la nature des toxines helminthiasiques." **14** (5), 846-848. [In Russian : French summary p. 849.]

b. PAVLOVA, P., 1936.—" De la toxicité du *Diphyllobothrium latum*." **14** (5), 850-855. [In Russian : French summary p. 855.]

(657a) Smorodintzev discusses critically the findings of previous authors on the subject of helminthic toxins, and introduces the preliminary work of Pavlova. R.H.H.

(657b) Pavlova has investigated the toxicity to cats of preparations of *Diphyllobothrium latum*, given by mouth or injected hypodermically. Experiments were carried out with fresh and macerated parasites and also with extracts of the protein and lipoid fractions. In all cases the animals reacted more or less strongly to the introduction of the material, and changes in the white blood cells were observed. The lipoid fraction was less toxic than the others. R.H.H.

658—Trabajos del Instituto de Biología Animal.

a. SÁNCHEZ BOTIJA, C., 1936.—" Contribución al conocimiento de la spirocercosis canina en España. (Estadística, patogénesis, anatomía patológica)." **4**, 88-109.

b. PAREDES, A., 1936.—" Nota sobre algunos helmintos parásitos de los équidos." **4**, 122-127.

(658a) In one year (1935-36) Sánchez Botija found 9% of 2,000 Madrid dogs infected with *Spirocerca sanguinolenta*. The highest incidence, 12·8%, was met with in the quarter March to May. More than half the dissections revealed both oesophageal and aortal lesions, whereas stomach lesions were present in only 1·1% of cases, and no other organs were involved. The small aortic nodules contain mostly larvae : the oesophageal nodules adults. The histopathology is described and illustrated. B.G.P.

(658b) Paredes gives brief descriptions of *Habronema muscae*, *H. microstoma*, *Strongylus vulgaris* and *Setaria equina* from three donkeys from Madrid and a mule from Toledo. B.G.P.

659—Transactions of the Chicago Pathological Society.

a. BUCY, P. C. & HUFF, C. G., 1936.—" *Cysticercus cellulosae* of human brain." **14** (5), 298-300.

660—Transactions and Proceedings of the Royal Society of New Zealand.

a. STOKELL, G., 1936.—"The nematode parasites of Lake Ellesmere trout." **66** (1), 80-96.

(660a) Stokell has studied the general conditions of life in Lake Ellesmere, and their effects upon parasitized and parasite-free fish. He concludes that the nematodes *Hedruris spinigera* and larval *Eustrongylides* sp. have a retarding effect on the growth-rate, especially at the spawning season. E.M.S.

661—Transactions of the Royal Canadian Institute.

a. BAKER, A. D., 1936.—"Studies on *Heterakis gallinae* (Gmelin, 1790) Freeborn, 1923, a nematode parasite of domestic fowls. Part II." **21** (1), 51-86.

(661a) In this second part of a complete description of *Heterakis gallinae* [for Part I see Trans. Canad. Inst., **20**, 1935, 179-215] Baker describes the typical arrangement of the genital system, noting that considerable variation may occur. The body cavity is variable in size and contains 3 elements—a fluid which may be thicker in the region of the intestine, irregular protoplasmic strands which show evidences of a cellular origin and also distinct cellular elements located mainly round the oesophagus. The nervous system and intestinal contents are described, and the nature of the symmetry in this species is discussed. The whole is illustrated with line drawings and photographs. P.A.C.

662—Transactions of the Royal Society of Canada.

a. McLEOD, J. A., 1936.—"Further notes on cercarial dermatitis." 3rd Ser., **30**, Section 5, 39-48.

(662a) Two new species of flukes from the hepatic portal veins of the canvas-back duck, *Nyroca valisneria*, are reported from Lake Frances, Manitoba and are described and figured under the names *Microbilharzia canadensis* n. sp. and *M. manitobensis* n. sp. Cercarial dermatitis occurs in numerous places throughout the Province of Manitoba. Descriptions are given of a holostome cercaria from *Helisoma (Planorbis) trivolvis* and of *Cercaria burti* Miller, 1923 from *Limnaea stagnalis jugularis*, both from Pelican Lake, Manitoba. R.T.L.

663—Travaux de la Section de Parasitologie de l'Institute de Médecine Experimentale de l'USSR M. Gorki.

a. SMIRNOV, G. G., 1936.—"On the question of hemathophagia [haematophagia] in threadworms and whipworms." **2**, 229-240. [In Russian: English summary p. 241.]

(663a) Smirnov considers that the blood-sucking of *Oxyuris vermicularis* is purely accident[al]. The anatomical structure of the whipworm excludes the possibility of the entrance of a large number of erythrocytes through the mouth although occasionally these cells have been seen. R.T.L.

664—Travaux de la Société Bulgare des Sciences Naturelles.

*a. VALKANOV, A., 1936.—" Über die Anatomie und Cytologie der Nematode *Binema binema* Travassos." 17, 153-167.

665—Tung-Chi Medizinische Monatsschrift. Kongressheft.

*a. OTTO, J. H. & TSCHAN TSCHING JI, 1936.—" Zur Diagnose und Behandlung der menschlichen Clonorchiasis und der durch sie bedingten Leberschädigungen." pp. 12-15.

*b. KOLLER, G., 1936.—" Pathogene Flagellaten und Trematoden." pp. 201-212.

c. ROSE, G. & KOH, T. M., 1936.—" Beobachtungen an Oncomelanien bei dem Dorfe Ku Dang (Hanghsien, Chekiang) hinsichtlich ihres Verhaltens und hinsichtlich ihrer Infektion mit Cercarien von *Schistosoma japonicum* im Kreislauf eines Jahres (August 1933 bis Juli 1934)." [Reprint 25 pp.]

(665c) From observations on Oncomelania collected monthly (or more frequently) from a canal bank over the course of a year, Rose & Koh find that the snails are infected throughout the year. However, they are found mainly on land during January and February, and again during July and August when they are dependent on the shade of permanent vegetation. Of over 20,000 snails examined, 171 shed cercariae within 24 hours of capture, a further 317 were found by dissection to contain mature cercariae, and 112 contained earlier stages. Cercariae are not shed at temperatures below 9°C. Parasites of Oncomelania other than *Schistosoma japonicum* are touched upon. B.G.P.

666—Union Médicale du Canada.

a. GUILBEAULT, A., 1936.—" L'oxyurose." 65 (3), 250-252.

b. GÉLINAS, H., 1936.—" La trichinose." 65 (12), 1172-1175.

(666b) Gélinas gives a short account of two cases of trichinosis observed in the Notre-Dame Hospital, and one in the Sainte-Justine Hospital, in Canada. This is followed by brief notes on the etiology, symptomatology, diagnosis, treatment and prophylaxis of the disease. For diagnostic purposes by the Bachman intradermal reaction, Trichinella antigen may be obtained from the Bureau of Agriculture in Washington. V.D.S.

667—University of Toronto Studies. Biological Series.

a. CLARKE, C. H. D., 1936.—" Fluctuations in numbers of ruffed grouse *Bonasa umbellus* (Linné), with special reference to Ontario." No. 41, 118 pp.

(667a) In considering the factors which affect the numbers of ruffed grouse in Ontario, helminths are briefly dealt with. *Harmostomum* spp., *Davainea tetraoensis* in young birds, particularly in the neighbourhood of Brule Lake, *Hymenolepis microps* and *Raillietina* segments were observed. None was pathogenic. *Ascaridia lineata* was a frequent parasite while *Cheilospirura spinosa* in a few cases caused serious lesions. Two cases of unidentified *Microfilaria* were noted. P.A.C.

* Original not available for checking or abstracting.

668—Valsalva.

a. LAURO, E. DE, 1936.—" Turbe labirintiche da *Taenia solium*. Contributo allo studio delle labirintotossie e del labirintismo." **12** (9), 437-441.

(668a) Symptoms, such as persistent noises in the ears, referable to the labyrinth, completely disappeared in a patient on expulsion of a *Taenia solium* scolex. De Lauro regards the case as evidence of toxic action by the tapeworm. B.G.P.

669—Vestnik Khirurgii.

*a. RABINERZON, A. B., 1936. [Roentgen diagnosis of cutaneomuscular cysticercosis.] **44**, 85-87.
*b. GOLUBEV, N. I., 1936.—[Surgical therapy of pulmonary echinococcosis.] **46**, 31-34.
*c. BRZHOZOVSKIY, A. G., 1936.—[One-stage closed method in surgical therapy of pulmonary echinococcosis with free pleural cavity.] **46**, 35-42.
*d. REPIN, S. I., 1936.—[Astrov symptom in echinococcosis of right lung.] **46**, 43-44.
*e. MIRER, V. I., 1936.—[Evaluation of surgical methods in therapy of echinococcosis of liver.] **46**, 45-54.

670—Veterinarski Arhiv.

a. BABIĆ, I., 1936.—" Entoparaziti ptica zapadnog dijela drzave." **6**, 297-302. [German summary p. 302.]

(670a) Babić presents a brief host-list of the helminths recorded from birds in the western parts of Yugoslavia. Parasites previously reported from poultry in this area [see Helm. Abs., Vol. II, No. 469a] are not included. Attention is drawn to a heavy infection of *Heterakis dispar* in *Alectoris graeca*, a new host record. B.G.P.

671—Veterinary Bulletin. U.S. Army. Washington.

a. UNDERWOOD, J. R., 1936.—[Reply to criticism of: ' Equine dhobie itch a symptom of filariasis '.] **30** (1), 71-77.
b. STEWARD, J. S., 1936.—" Fistulous withers and poll evil." **30** (2), 147-151.

(671a) Underwood replies to criticism of his report on equine dhobie itch in horses in the Philippines [see Helm. Abs., Vol. III, No. 266a] in which he stated the causal parasite to be the microfilariae of an unidentified filaria. While admitting the possibility that the microfilariae are the larvae of *Onchocerca cervicalis*, he points out that in the majority of post-mortems on infected horses, no adult *O. cervicalis* were found. He emphasizes that the microfilariae were present in large numbers in the lesions, and photomicrographs of these are included. He is unable to accept the suggestion that the lesions might be caused by biting flies. American horses are affected by the same disease but with slight variations. The symptoms are not so severe and the lesions have different locations. It is thought

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that this difference may be accounted for by different biting habits of the insect vectors in America and in the Philippines. Diagnosis of the disease in American horses was based on the characteristic symptoms and the discovery of the parasite in the lesions in every case. J.J.C.B.

(671b) [The original of this article appeared in full elsewhere in 1935; see Helm. Abs., Vol. IV, No. 460d.]

672—Veterinary Medicine.

a. SHILLINGER, J. E., 1936.—" Parasites and wildlife." [Abstract of a paper presented to the 39th Annual Meeting of the U.S. Live Stock Sanitary Association, December, 1935.] **31** (1), 12-13.

b. EASTMAN, D. A., 1936.—" Recent developments in small animal practice." **31** (2), 90-93.

c. WHITNEY, L. F., 1936.—" A study of 1000 fecal examination reports." **31** (3), 104-105.

d. GOUGE, R. E., 1936.—" Cysticercosis in deer." **31** (6), p. 259.

e. McCULLOCH, E. C., 1936.—" Disinfection of kennels." **31** (11), 485-486.

f. SHILLINGER, J. E., 1936.—" Government research on diseases of fur animals." **31** (12), 508-509.

g. WEGNER, E. E., 1936.—" Mink. Care, handling and common diseases." **31** (12), 510-515.

h. SWEEBE, E. E., 1936.—" Common sense in fox farming." **31** (12), 520-523.

i. SECORD, A. C., 1936.—" Diseases of fur bearing animals." **31** (12), 532-549.

(672a) Adults of an undetermined species of *Dirofilaria* have recently been found in muskrats. *Onchocerca flexuosa* is a frequent infection of mule deer in the Rocky Mountains. R.T.L.

(672b) *Dirofilaria immitis* occurs to the extent of 25% in dogs in some parts of the North Atlantic sea-board. R.T.L.

(672c) An examination of the faeces of 1,492 dogs in the eastern United States showed that 610 or 41% were negative for helminths. 350 had *Trichuris vulpis*, 312 had *Toxascaris* and *Toxocara*, 268 had hookworm, 14 had *Oxyuris*, and 13 had *Strongyloides stercoralis*. R.T.L.

(672d) Gouge records a case of *Cysticercus tenuicollis* in the liver and peritoneal cavity of a doe which was found dead at the Sunset Park Zoo, Manhattan, Kansas. J.W.G.L.

(672e) Experiments on soil in runs heavily infected with the dog hookworm show that the addition of sodium hydroxide solution, producing a surface alkalinity of *p*H 12 or more (indicated by turning trinitrobenzene orange-red), was effective in destroying the infective larvae present. Sixty gallons of 2% sodium hydroxide was sufficient to treat an area 20 by 30 feet. J.W.G.L.

(672f) *Uncinaria stenocephala* infestations were found on practically every ranch in the United States. Ascarid infections among young fox pups were frequently so heavy as to be fatal in the first few weeks of life. R.T.L.

673—Vida Nueva.

a. CALVÓ FONSECA, R., KOURÍ, P. & BASNUEVO, J. G., 1936.—"Porcentaje y distribución geográfica del parasitismo intestinal en Cuba. Provincia: La Habana. Pueblos: Marianao, Güines, Isla de Pinos Aquacate, San Nicolás de Güines y San Antonio de las Vegas." **37** (3), 274-286.

674—Vlaamsch Diergeneeskundig Tijdschrift.

*a. WAELE, A. DE & DEDEKEN, L., 1936.—"Het evaginatieproces bij *Cysticercus bovis* en de migratie van den parasiet bij den mensch." **5** (4), 115-120.

b. WAELE, A. DE, 1936.—"Voorloopige mededeeling over cultuurproeven van cestoden." **5** (4), 123-126. [French summary p. 126.]

*c. GEURDEN, L. & WAELE, A. DE, 1936.—"Helminthiase en osteopathie bij leeuwen." **5** (8), 261-268.

(674a) [For abstract of this paper see above No. 569a.]

(674b) As a result of preliminary attempts to find an efficient culture-medium for cestodes, based on his preceding physiological experiments, de Waele has succeeded in culturing *Cysticercus pisiformis* (artificially evaginated) over a period of eight days, by which time young proglottids had formed in some cases. B.G.P.

675—West African Medical Journal.

a. ELLIS, M., 1936.—"Appendix abscess in hernial sac associated with bilharziasis." **9** (1), p. 14.

676—Wissenschaftliche Berichte der Tierärztlichen und Zootechnischen Hochschule zu Witebsk (U.d.S.S.R.).

a. BELKIN, G. Y. & SCHLETZER, A. M., 1936.—"Die histologischen Veränderungen bei der Lungenmetastrongilidose der Schweine." **3**, 109-118. [In Russian: German summary p. 118.]

b. SCHTERBOVITSCH, I. 1936.—"Intravitale Diagnostik der Metastrongilidose der Schweine." **4**, 69-97. [In Russian: German summary p. 98.]

c. SCHTERBOVITSCH, I. & POLOS, D., 1936.—"Über die Wirkung von Chlor auf Metastrongylus der Schweine." **4**, 99-105. [In Russian: German summary p. 106.]

d. ARTJUCH, E., 1936.—"Über die Verbreitung der Trichocephaliden der Schafe in U.d.S.S.R. und ihre Bedeutung unter Zugrundnahme ihrer Fixationsweise und Ernährungsart." **4**, 107-114. [In Russian: German summary p. 114.]

e. ARTJUCH, E., 1936.—"Materiale zur Helmynthofauna der Schafe in der Ukrain S.S.R." **4**, 115-122. [In Russian: German summary p. 122.]

(676a) Belkin & Schletzer discuss the post-mortem appearance of 350 pig lungs infected with Metastrongylus, 150 of which were examined histologically. The bronchi, when involved, may show destructive changes or muscular thickening. Small pneumonic foci were common, but the characteristic lesion is the connective-tissue nodule situated in the lung parenchyma. B.G.P.

* Original not available for checking or abstracting.

(676b) Schterbovitsch states that, in the faeces of pigs infested with Metastrongylus, eggs and not larvae are found. These have so high a specific gravity (about 1·18) that ordinary flotation methods do not avail; he has successfully used 62% Mg SO_4 solution, however (s. g., 1·26). B.G.P.

(676c) Schterbovitsch & Polos give results of 130 experiments to test various concentrations of gaseous chlorine against Metastrongylus *in vitro*. Concentrations of from 1 in 20,000 to 1 in 40,000 are almost completely lethal in from 15 to 30 minutes. B.G.P.

(676d) Artjuch concludes from his investigations on *Trichuris ovis* that the form of the spicular sheath is not a diagnostic feature since it varies under different physiological conditions. The parasites, which penetrate the mucosa via the crypts of Lieberkühn apparently as far as the muscular layer, are claimed to be blood-feeders. B.G.P.

(676e) Artjuch records the helminths found from 151 post-mortem examinations and 6,997 faecal examinations of sheep in the Ukraine. The cestodes are not represented apart from hydatid cysts. B.G.P.

677—Yale Journal of Biology and Medicine.

*a. O'CONNOR, F. W., 1936.—" Animal parasitism in Connecticut and adjoining states." **8**, 619-635.

678—Zeitschrift für die Gesamte Neurologie und Psychiatrie.

a. WAGNER, W. & COSACK, H., 1936.—" Zur Diagnose der Hirncysticerkose." **156**, 660-676.

679—Zeitschrift für Kinderheilkunde.

a. WENDT, H., 1936.—" Beiträge zum Entwicklungszyklus bei *Oxyuris vermicularis*." 58, 375-387.

(679a) From experiments involving the attempted culture of oxyuris eggs in atmospheres of hydrogen and of carbon dioxide respectively, Wendt concludes that oxygen is essential to their development. In neither gas did development proceed beyond the tadpole-stage. Discussing the bearing of this upon Penso's theory of a continuous life-history within the body of the host [see Helm. Abs., Vol. II, No. 139a], Wendt admits that sufficient oxygen might be present within the intestinal wall but urges that demonstration of infective eggs and larval stages in the mucosa is necessary before the theory can be accepted. B.G.P.

680—Zeitschrift für Parasitenkunde.

a. HSÜ, H. F., 1936.—" Studien zur Systematik und Entwicklungsgeschichte der Gattung Leucochloridium Carus. II. Über zwei Leucochloridium-Arten der Kurischen Nehrung sowie über Fütterungsversuche mit grünen Sporocysten dieser Gattung." 8 (6), 714-728.

* Original not available for checking or abstracting.

(680a) Hsü describes a species of *Leucochloridium* from *Vanellus vanellus* which is probably *L. sime* Yamaguti, 1935, and another from *Pavoncella pugnax* which seems identical with the species wrongly described as *L. insigne* by Witenberg (1923). He also describes, and figures in colour, green sporocysts from *Succinea putris* each of which contained about 300 cercariae. By feeding these sporocysts to *P. pugnax*, *Passer domesticus* and *Serinus canaria* he obtained developmental stages of the species found naturally in *P. pugnax*. B.G.P.

681—Zeitschrift für Pflanzenkrankheiten (Pflanzenpathologie) und Pflanzenschutz.

a. REINMUTH, E., 1936.—" Das Franzosenkraut als Wirtspflanze von *Heterodera marioni* (Cornu 1879) Goodey 1932." **46** (1), 6-8.

b. REINMUTH, E. & SPRINGENSGUTH, W., 1936.—" Versuche über den Wirtspflanzenkreis des Kartoffelnematoden [*Heterodera schachtii* (Schmidt) f. *solani*]." **46** (1), 8-13.

c. GOFFART, H., 1936.—" Neue Wirtspflanzen von *Heterodera schachtii* Schmidt. IV. Beitrag zu: Rassenstudien an *Heterodera schachtii* Schm." **46** (8), 359-364.

(681a) For the first time is recorded in Germany an infection of *Heterodera marioni* on *Galinsoga parviflora*. On this account Reinmuth emphasizes the importance of exterminating this weed. M.T.F.

(681b) Reinmuth & Springensguth discuss the transmission of the potato strain of *H. schachtii* to tomatoes and describe experimental attempts to transmit this strain to other hosts belonging to the family Solanaceae. *Solanum miniatum* and *Solanum Lycopersicum* alone became infected in the first year of cultivation in infected soil. Of ten varieties of *S. Lycopersicum* tested all became infected but the degree of infestation showed some variation. No infections were found on (i) *Solanum sisymbrifolium*, (ii) *Schizanthus pinnatus*, (iii) *Salpiglossis sinuata*, (iv) *Petunia hybrida*, (v) *Nicandra physaloides*, (vi) *Scopolia lurida*, (vii) *Nicotiana silvestris*, (viii) *N. fragrans*, (ix) *N. Tabacum*, (x) *N. rustica*, (xi) *Hyoscyamus niger*, (xii) *Atropa Belladonna*.

M.J.T.

(681c) Goffart experimentally transmitted a strain of *H. schachtii* attacking beet to the following plants: *Atriplex hastatum*, *Alliaria alliaria*, *Alyssum saxatile*, *Arabis hirsuta*, *Biscutella laevigata*, *Lunaria annua*, *Sinapis eruca*, *Sisymbrium strictissimum*, *Lathyrus aphaca*, *Myosurus minimus*, *Reseda odorata*, *Anethum graveolens*, *Viola tricolor*. He suggests that certain of these plants act as " quandary hosts " in the absence of preferred species and that the strain tends to revert to its fundamental unspecialized form. M.J.T.

682—Zentralblatt für Chirurgie.

a. KAGALNITZKY, 1936.—" Echinococcus des Ileosakralgelenkes." **63** (29), 1705-1708.

b. KONDOLEON, E. & DRAGONAS, E., 1936.—" Die Cystographie zur Diagnose und Lokalisation des Hirnechinococcus." **63** (33), 1953-1956.

c. SZEKELY, L., 1936.—" Ascariasis der Gallenwege." **63** (37), 2178-2181.

683—Zoologica. New York.

a. NIGRELLI, R. F., 1936.—" Some tropical fishes as hosts for the Metacercaria of *Clinsotomum complanatum* (Rud. 1814) (= *C. marginatum* Rud. 1819)." **21** (4), 251-256.

(683a) Nigrelli reports the yellow-grub stage of *Clinostomum complanatum* from 8 species of tropical fish received at the New York aquarium. He lists also various neo-tropical fishes throughout the world, including North American species known to be infected with this worm, and records 9 other species of *Clinostomum* with a similar larval stage. The host fishes are typically pond forms. E.M.S.

684—Zoological Magazine.

a. SYÔGAKI, Y., 1936.—" Some observations on *Aspidogaster conchicola* Baer." **48** (2), 56-59. [In Japanese : English summary p. 59.]

b. YAMADA, S., ASADA, J. & MIYADA, I., 1936.—" Studies on the life-history of a common rat-tapeworm, *Hymenolepis diminuta* (Rudolphi), especially on the relation between this tapeworm and rat-fleas." **48** (8/10), 437-457. [In Japanese : English summary pp. 437-438.]

c. YOKOGAWA, S., 1936.—" A human case of accidental parasitism of *Diplo-scapter coronata* (Cobb, 1893) Cobb, 1913." **48** (8/10), 507-511. [In Japanese : English summary p. 507.]

d. OZAKI, Y., 1936.—" Two new genera of the trematode family, Allocreadiidae." **48** (8/10), 513-518. [In Japanese : English summary pp. 513-515.]

e. YOSHIDA, S., ONOHARA, K. & TOMIHA, G., 1936.—" On a first case of *Gnathostoma spinigerum* Owen in Japanese cat, with especial reference to its development." **48** (8/10), 565-571. [In Japanese : English summary p. 565.]

f. TAKEUTI, E., 1936.—" A new trematode *Steganoderma kamatukae* from *Pseudogobio esocinus* (Temminck & Schlegel)." **48** (8/10), 581-583. [In Japanese : English summary p. 581.]

g. IWATA, S., 1936.—" *Diphyllobothrium mansonoides* Mueller is the synonym of *D. erinacei* (Rudolphi)." **48** (8/10), 665-668. [In Japanese : English summary p. 665.]

h. KATSURADA, F., 1936.—" Beiträge zur Kenntnis der Biologie und der pathogenen Bedeutung der Trematoden." **48** (8/10), 685-691. [In German.]

i. FUKUI, T. & MORISITA, T., 1936.—" Three new species of Acantho-cephala from Japan. (A preliminary report)." **48** (8/10), 759-764. [In Japanese : English summary p. 759.]

j. FUKUI, T. & OGATA, T., 1936.—" Sur deux espèces nouvelles de trématode provenant de l'*Acadia sinensis*." **48** (8/10), 765-770. [In Japanese : French summary p. 765.]

k. ISHII, N., 1936.—" Some new ectoparasitic trematodes of marine fishes." **48** (8/10), 781-790. [In Japanese : English summary p. 781.]

l. OZAKI, Y., 1936.—" *Flagellotrema convolutum* n. g., n. sp., a new trematode of the family Gyliauchenidae." **48** (11), 951-953. [In English.]

(684b) Yamada, Asada & Miyada show that, experimentally, the rat fleas *Ceratophyllus anisus*, *C. fasciatus*, *Leptopsylla musculi* and *Xenopsylla cheopis* are all suitable intermediate hosts for *Hymenolepis diminuta*. The development of the oncosphere in the body of the flea is affected by atmospheric temperature, being more rapid in late spring and summer than in early spring. An examination to determine the ratio of fleas naturally infected with

cysticercoids of *H. diminuta* resulted as follows : *Ceratophyllus anisus*, 2·11% ; *C. fasciatus*, 1·22% ; *Leptopsylla musculi*, 0·82% ; *Xenopsylla cheopis*, none. Albino rats were infected by feeding them on fleas harbouring cysticercoids. A.E.F.

(684c) Yokogawa reports on the occurrence of *Diploscapter coronata* (Cobb, 1893) Cobb, 1913 in the urinary sediment of an old woman hospital patient. He suggests that this free-living, saprophagous nematode, which was also found in rotten banana tissues close to her house, may have been transferred to the uro-genital opening through contact with the soil and have persisted in this location. T.G.

(684d) Ozaki describes three new Allocreadiidae from the intestine of marine fishes, viz., *Leptocreadium skrjabini* n. g., n. sp. from *Cantherines modestus*, *L. vitellosum* n. sp. from *Goniistius zonatus* and *Hypocreadium symmetrorchis* n. g., n. sp. from *Monacanthus cirrhifer*. A.E.F.

(684e) Yoshida, Onohara & Tomiha record *Gnathostoma spinigerum* from the stomach wall of the Japanese cat, and give the results of experiments carried out to determine its life-history. The uterine eggs develop into motile embryos in from 5 to 7 days under favourable conditions, immediately hatch out and enter *Cyclops*. The larvae in *Cyclops* never develop in the final host, and it is suggested that the green frog and the gold fish may serve as second intermediate hosts. A.E.F.

(684i) Fukui & Morisita describe *Filisoma japonicum* n. sp. from the intestine of the marine fish *Hexagrammos otakii* and *Porrorchis ogatai* n. sp. from the intestine of *Merula pallida*. [Although 3 new species are mentioned in the title only 2 are described.] A.E.F.

(684j) Fukui & Ogata describe *Polystomoides microrchis* n. sp. and *P. ocadiae* n. sp. from *Ocadia sinensis* in Formosa. *P. microrchis* was found in the buccal cavity and is distinguished from all other known species by the size of the testes and the number of genital spines. *P. ocadiae*, which was found in the bladder, can be identified by the well developed hooks of the caudal disc and the number of the genital spines. A.E.F.

(684k) Ishii describes one new genus and seven new species of ectoparasitic trematodes from marine fishes, viz., *Tristoma magronum* n. sp., *T. katsuwonum* n. sp., *Dactylocotyle minor* n. sp., *Axine seriola* n. sp., *Pseudaxine katsuwonis* n. sp., *P. vagans* n. sp. and *Gotocotyla sawara* n. g., n. sp. Ishii erects the new genus *Gotocotyla*, which resembles *Microcotyle* but has marginal hooks on the posterior end of the body. A.E.F.

(684l) Ozaki describes *Flagellotrema convolutum* n. g., n. sp. from the rectum of the marine fish *Xesurus scalprum*. *F. convolutum* is of the same colour and shape as *Telotrema caudatum* Ozaki, 1933 but the former is smaller and the shape of the excretory protuberance which hangs on the dorsal surface near the posterior end of the body is characteristic. *Gyliauchen papillatus*, *Telotrema* spp. and *Paragyliauchen* spp. which closely resemble *F. convolutum* can be distinguished by the position of the ovary. A.E.F.

685—Zoologische Garten (Der).

a. KAHL, W., 1936.—"Befall der Lunge mit dem Fadenwurm *Otostrongylus circumlitus* als Todesursache bei Seehunden." 8 (10/12), 295-297.

(685a) In this brief note on *Otostrongylus circumlitus* infection in *Phoca vitulina* Kahl differentiates between the pathological effect of the parasite itself and that of bacterial invaders which he regards as secondary to it. The parasite, which is apparently specific to this seal, and of which the life history is not yet known, causes mechanical blockage and direct destruction of lung tissues, but there is no evidence of any toxic action. B.G.P.

686—Zoologische Jahrbücher. Abteilung für Anatomie und Ontogenie der Tiere.

a. MEYER, A., 1936.—"Die plasmodiale Entwicklung und Formbildung des Riesenkratzers. (*Macracanthorhynchus hirudinaceus* (Pallas)). I. Teil." 62 (1), 111-172.

687—Züchter.

a. WÅLSTEDT, I., 1936.—"Verschiedene Rassen bei *Heterodera schachtii* Schmidt." 8 (7/8), 201-208.

(687a) Wålstedt discusses the views of other workers and his own experimental findings on the stability of strains of *Heterodera schachtii* attacking beet and oats. He concludes that two strains exist, distinct both morphologically and biologically, one attacking graminiferous hosts only and showing periodicity in its time of liberating larvae from the cysts, the other more polyphagous and not showing this periodicity. He believes that there is no basis for the view than an intermediate strain capable of attacking both host groups exists, or that hybrid strains ever occur. He thinks it improbable that any link exists between size of larvae and tendency to attack unusual hosts, agreeing with Schmidt that the small larvae in the oat strain result from insufficient nourishment. Finally he concludes that the differences between oat and beet strains may be considered to be specific. M.J.T.

688—Zvěrolékařský Obzor.

a. POUSKA, 1936.—"Prohlídka masa na trichiny v Polsku." 29 (20), 384-387.

(688a) Pouska describes the methods used [microscopic inspection only], the working hours and duties of inspectors, and the regulations governing the disposal of infected meat now in force in Poland, since compulsory meat inspection for trichinosis was introduced in 1929. V.D.S.

NON-PERIODICAL LITERATURE.

689—ALLGÉN, C. A., 1936.—"Die Pelagonemen des Mittelmeeres." Festschrift zum 60.Geburtstage von Embrik Strand, Riga, 1, 266-271.

Allgén describes marine nematodes belonging to the genus *Pelagonema* collected from Mediterranean waters. He gives a diagnosis of the genus and brief accounts of three species. T.G.

690—ALLGÉN, C. A., 1936.—"Das Weibchen des *Paroncholaimus parpapilliferus* Micoletzky." Festschrift zum 60.Geburtstage von Embrik Strand, Riga, **1**, 272-273.

Allgén describes the female of the marine nematode *Paroncholaimus parpapilliferus* obtained in a collection of material at Banyuls-sur-Mer on the French Mediterranean coast. T.G.

691—ALLGÉN, C. A., 1936.—"Die Odontophoren." Festschrift zum 60. Geburtstage von Embrik Strand, Riga, **2**, 211-224.

Allgén gives an account of the marine nematode genus *Odontophora* with brief descriptions of 12 species and a key to the same. T.G.

692—ALLGÉN, C. A., 1936.—"Weitere Desmodoren." Festschrift zum 60. Geburtstage von Embrik Strand, Riga, **2**, 224-227.

Allgén gives short descriptions of the following marine nematodes: *Desmodora leucocephala, D. eucraspedota, D. microchaetoides* and the male of *D. tenuicauda.* T.G.

693—ALLGÉN, C. A., 1936.—"Das Genus *Allgéniella* Embrik Strand." Festschrift zum 60.Geburtstage von Embrik Strand, Riga, **2**, 227-229.

Allgén gives a brief description and diagnosis of the marine nematode genus *Allgéniella.* T.G.

694—ANON, 1936.—"Measles in cattle and pigs." [Discussion.] Conference on Co-ordination of Veterinary Research held at Kabete, Kenya, 20-23 January, 1936, pp. 19-24.

Daubney reports that he had attempted to immunize cattle against infection with *Cysticercus bovis* but that neither the experimental animals nor the controls became infected. In East Africa there is a close association between concentrations of natives and the incidence of measles, and calves frequently became infested when dairying of the Hoozier type was practised even although the portable milking bails and calf pens were moved frequently. *Cysticercus cellulosae* in pigs is confined to certain well defined areas of Kenya as contrasted with the wide distribution of *C. bovis* in cattle. The following rates of infestation of animals slaughtered at the Nairobi Abattoir in 1934 are given by Tilling: *C. cellulosae* 4 out of 9,959 pigs; of *C. bovis* in cattle the infection rate was 16·3%, in native cattle 17·7%, and in graded cattle 13·2%. R.T.L.

695—BAYLIS, H. A., 1936.—"The fauna of British India, including Ceylon and Burma. Nematoda. Vol. I. (Ascaroidea and Strongyloidea)." London, xxxvi + 408 pp.

696—BONO, E., 1936.—"Cysticercose cérébrale et syndromes épileptiformes." Alger, 157 pp.

697—BRUMPT, E., 1936.—" Précis de parasitologie." Paris, 5th Edition, 2 volumes, xii + 2139 pp.

698—DOR, J., 1936.—" La perforation des kystes hydatiques du foie dans le tube digestif." Paris, 56 pp.

699—FIEBIGER, J., 1936.—" Die tierischen Parasiten der Haus- und Nutztiere, sowie des Menschen." Berlin & Wien, 3rd Edition, xii + 374 pp.

700—GARNIRON, R., 1936.—" Conservation des oeufs de quelques nématodes dans les féces ; cas particulier d'Alger." Thesis, Alger, 160 pp.

Garniron reviews the literature on the effect of physico-chemical factors in the development of extra-corporeal stages of hookworm, Trichuris and Ascaris. It was already known that hookworm would not develop in sea-water ; he now shows that Ascaris and Trichuris eggs will so develop. This may be a factor of some importance in the spread of these worms, especially in Algiers where the sewers discharge into the sea and sea-water is used for street cleaning. B.G.P.

701—GOODWIN, H., 1936.—" Parasites and parasitism of stock in Antigua." Antigua, ix + 76 pp.

The internal parasites of domesticated animals recorded for Antigua are : *Moniezia expansa*, *M. alba*, *Cittotaenia* sp ?, *Cysticercus cellulosae*, *C. tenuicollis* and cysticerci in several unnamed hosts, *Ascaris lumbricoides*, *A. equorum*, *A. vitulorum*, *Oxyuris curvula*, *Strongylus equinus*, *S. vulgaris*, *Triodontophorus serratus*, *T. minor*, *Trichonema auriculatum*, *T. catinatum*, *T. tetracanthum*, *Oesophagostomum radiatum*, *O. columbianum*, *O. dentatum*, *Stephanurus dentatus*, *Metastrongylus apri*, *M. brevivaginatus*, *Dictyocaulus filaria*, *D. viviparus*, *Haemonchus contortus*, *Setaria equina*, *S. labiato-papillosa*, *Habronema microstoma*, *Gigantorhynchus gigas*. *S. dentatus* and *G. gigas* are stated to be fairly common and to have caused death in pigs in Antigua in recent years. R.T.L.

702—*IBRAHIM PACHA, A., 1936.—" Conditions chirurgicales de la bilharziose." Congrès (10me) de la Société Internationale de Chirurgie, 3, 477-559.

703—JÄNEL, H., 1936.—" Über die anthelminthische Wirkung des Rotenons." Inaugural-Dissertation, Berlin, 37 pp.

Jänel has found that Rotenon is not toxic when administered per os in the following doses : rabbits 0·1 g., dogs up to 3 g., and foals 5 g. Injected subcutaneously, guinea-pigs and horses were able to tolerate 0·04 g. per kg. bodyweight. Rotenon in linseed oil and in a chloroform-linseed oil solution was found to be without vermicidal action on sclerostomes of horses. K.S.

* Original not available for checking or abstracting.

704—KOPP, K. O., 1936.—" Die Feststellung der Invasionstüchtigkeit von *Cysticercus inermis*." Inaugural-Dissertation, Berlin, 27 pp.

Kopp's experiments, designed to compare Iwanizky's silk bag technique for testing the infectivity of cysticerci [see Helm. Abs., Vol. II, No. 208a] with Keller's modification using a celluloid tube [see Helm. Abs., Vol. IV, No. 72b], show that on the whole more cysticerci survive digestion by the latter method, which therefore is more reliable. B.G.P.

705—KRANKE, W., 1936.—" Die Leberegelkrankheit der Schafe im Regierungsbezirk Königsberg i. Pr. in den Jahren 1931, 1932 und 1933 und ihre volkswirtschaftliche Bedeutung." Inaugural-Dissertation, Berlin, 53 pp.

Kranke has investigated the incidence of fascioliasis in sheep in the Königsberg district during 1931-33. For 13 towns he gives the number of sheep slaughtered, the number of livers condemned and the number of carcasses condemned, for each month during the three years. These years were comparatively dry and no abnormally high incidences were found. Eggs were found in the faeces of 95 out of 100 sheep found post mortem to be infected. B.G.P.

706—*MAKAR, N., 1936.—" Some surgical aspects of bilharziasis." Congrès (1ome) de la Société Internationale de Chirurgie, 3, 561-677.

707—MASCHKE, K., 1936.—" Die Höhlenfauna des Glatzer Schneeberges. 5. Die Metazoenfauna der Bergwerke bei Mährisch-Altstadt." In: Pax, F., " Beiträge zur Biologie des Glatzer Schneeberges," Heft 2, pp. 175-191.

Maschke, reporting on the fauna of certain caves, mentions the following free-living nematodes: *Monohystera filiformis*, *Plectus cirratus* and *Dorylaimus stagnalis*. T.G.

708—*MÜLLER, H., 1936.—" Vergleichende Untersuchungen über den Nachweis von Helmintheneiern nach den verschiedenen Methoden bei Hund und Katze." Inaugural-Dissertation, Leipzig, 43 pp.

709—NEVER, E., 1936.—" Über die Brauchbarkeit der Komplementbindungsreaktion und Allergieprüfung zum Nachweis von Echinokokken bei Rindern und Schafen." Inaugural-Dissertation, Leipzig, 30 pp.

Never produces evidence to show that the complement fixation reaction is useful in the diagnosis of hydatid cyst in domestic stock, whereas the cutaneous reaction was of little value. These results are opposed to the results obtained from human cases where the complement fixation test is of doubtful value and the cutaneous test is useful. Occasionally in stock some negative or doubtful results may be obtained where the cyst has become calcified.

P.A.C.

710—NEVEU-LEMAIRE, M., 1936.—" Traité d'helminthologie médicale et vétérinaire." Paris, xxiii + 1514 pp.

711—PUSSARD, R., 1936.—" Les nématodes des cultures florales appartenant au genre *Heterodera*." Nice, 4 pp.

* Original not available for checking or abstracting.

Pussard gives a general account of the life cycles of *Heterodera marioni* and *H. schachtii*, describes their host ranges and methods of dispersal, and refers to certain methods of control. Repeated infections of *Dianthus* by *H. schachtii* in the South of France are recorded. M.J.T.

712—REIS, J., NOBREGA, P. & REIS, A. S., 1936.—" Tratado de doenças das aves. Tratado de ornithopathologia." São Paulo, vi + 468 pp.

[Diseases of birds. Contains a section on helminthiasis.]

713—SCHOLZ, G., 1936.—" Allergische Reaktionen bei mit Zestoden befallenen Hunden." Inaugural-Dissertation, Berlin, 29 pp.

Scholz has examined the allergic reactions of dogs fed with *Cysticercus tenuicollis*, using extracts of the adult worm as antigen. As the results were somewhat uncertain—known positives giving negative results and vice versa—he believes that the value of these tests in diagnosis is small. When a reaction followed injection of the antigen the climax was reached in 6 hours, after which it subsided. P.A.C.

714—WAELE, A. DE, 1936.—" Le mécanisme physiologique des migrations et de la spécificité chez les cestodes." Comptes Rendus du XIIe Congrès International de Zoologie, Lisbonne, 1935, pp. 312-328.

De Waele discusses the physiological changes which cestode larvae undergo during their migrations in the host. The scolex is protected from the action of the gastric juice by an impermeable cuticular membrane. Digestion by the pancreatic juice takes place only when the cuticle has previously been impregnated with gastric juice. This is explained by the fact that the mixing of acid gastric juice with alkaline pancreatic juice liberates CO_2 which dilates the interstices of the cuticle and renders it permeable to the pancreatic juice. Evidence is presented to suggest that the specificity of the definitive host to cestodes might be accounted for by the composition of the bile fluid. Experiments with *Cysticercus pisiformis* showed that in taurocholate solution the vitality of the young cestode was not diminished until the third day after evagination. In glycocholate solution death occurred a few hours after evagination. Glycocholate is absent from the bile of the dog, and when it was added experimentally the parasite died rapidly. R.H.H.

715—*WAGNER, O., 1936.—" Beiträge zu einer Revision der Nematodengattungen *Capillaria, Hepaticola* und *Eucoleus*." Dissertation, Giessen.

716—WEISGERBER, W., 1936.—" Therapeutische Versuche an Hunden mit dem Antitaenikum Cinchofil." Dissertation, München, 34 pp.

Weisgerber describes 20 cases of taeniasis in dogs which he has treated with Cinchofil administered either as an oily solution, as a 10% solution in oil in gelatine capsules, or as a powder. The first method caused severe vomiting and was abandoned. Both the latter methods brought about cessation of peristalsis and they proved 94·7% unsuccessful as taeniafuges. K.S.

* Original not available for checking or abstracting.

717—YAMAGUTI, S., 1936.—" Studies on the helminth fauna of Japan. Part 15. Trematodes of fishes, II." Kyoto, 6 pp.

Yamaguti describes and figures two new trematodes from fishes, viz., (i) *Philopinna higai* n. g., n. sp. from *Sarcocheilichthys variegatus*. This is most closely related to *Nematobothrium* van Beneden, 1858, but differs fundamentally in that the two branches of the caecum unite at the posterior end, and in the position of the ovary. *Philopinna* is the first member of the Didymozoidae to be recorded from fresh-water fishes. (ii) *Asymphylodora diplorchis* n. sp. from *Pseudogobio esocinus*, which differs from all other members of the genus in the possession of two testes. A.E.F.

718—YAMAGUTI, S., 1936.—" Studies on the helminth fauna of Japan. Part 16. Trematodes of fishes, III." Kyoto, 6 pp.

Yamaguti describes and figures two new species of Allocreadiidae from marine fishes, viz., (i) *Lepocreadioides zebrini* n. g., n. sp. from *Zebrias zebrinus*, distinguished from the closely related *Lepocreadium* by the position of the genital pore. (ii) *Labrifer semicossyphi* n. g., n. sp. from *Semicossyphis reticulatus*. The presence of two muscular lips on the free margin of the ventral sucker differentiates this genus from all other Allocreadiidae. A.E.F.

INDEXES.

NOTE.

In all indexes the reference is to the serial numbers and not to the pages. In the indexes of Authors and Subjects numbers in **bold** type indicate abstracts and numbers in Roman type refer to title-only entries.

In the Index of Authors, joint authors are separately listed. Thus, " Jones, A. & Brown, B." would appear also as " Brown, B. with Jones, A."

In the Index of Subjects, alphabetization is under the first word (e.g., " *Acer* sp." before " *Acerina* sp."). Under the generic name of a helminth the following order is observed : Papers on the genus as such ; papers on undefined species ; papers on new and defined species, e.g.,

Capillaria
— spp.
— *aerophila*
— *amarali* n. sp.

In cross-entries under names of hosts, the specific names of new species of helminths are omitted. *Anthelmintics* are listed under that word and also under name of parasite and/or host.

(The reference is to the serial numbers : numbers in bold type indicate abstracts.)

(The reference is to the serial numbers: not to the pages.)

(The reference is to the serial numbers : numbers in **bold** type indicate abstracts.)

CORRIGENDA.

Serial No.	
105c	(Title) *For* " Sardon " *read* " Sardou "
122n	(Abstract) Line 1 *For* " *Schwartzeilla* " *read* " *Schwartziella* "
122n	(Abstract) Line 5 *For* " *Schwartziilla* " *read* " *Schwartziella* "
153a	(Abstract) Line 1 *For* " Queensland " *read* " U.S.A."
167a	(Title & Abstract) *For* " Davór, M." *read* " Mikačić, D."
201a	(Title) *For* " baudroise " *read* " baudroies "
205a	(Title) *For* " Osservasioni " *read* " Osservazioni "
239a	(Title) Line 3 *Delete* comma *after* cultura
253a	(Title) *For* " Cawston, F. C." *read* " Cawston, F. G."

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